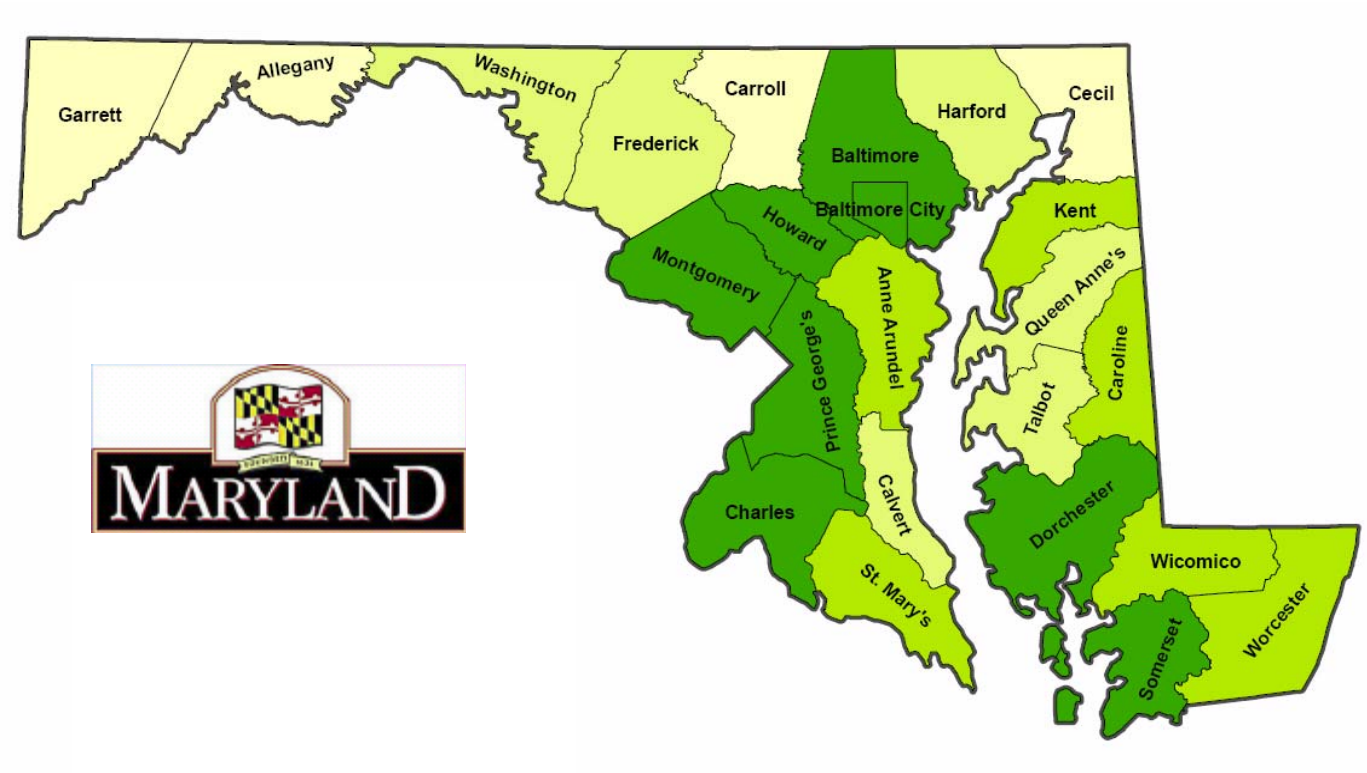
Maryland Department of Health and Mental Hygiene

Minority Health and Health Disparities
Maryland Department of Health and Mental Hygiene

Maryland Chartbook of Minority Health And Minority Health Disparities Data

With Sections on Gender-specific Health And Jurisdiction-specific Health

Second Edition: December 2009



Martin O'Malley, Governor

Anthony G. Brown, Lt. Governor

John M. Colmers, Secretary

Maryland Department of Health and Mental Hygiene

Maryland Chartbook of Minority Health and Minority Health Disparities Data

With Sections on Gender-Specific Health and Jurisdiction-Specific Health

Second Edition

Minority Health and Health Disparities

Prepared by:

David A. Mann, MD, Ph.D
Epidemiologist
Minority Health and Health Disparities

Toyin Fatogun, MPH
Research Analyst
Minority Health and Health Disparities

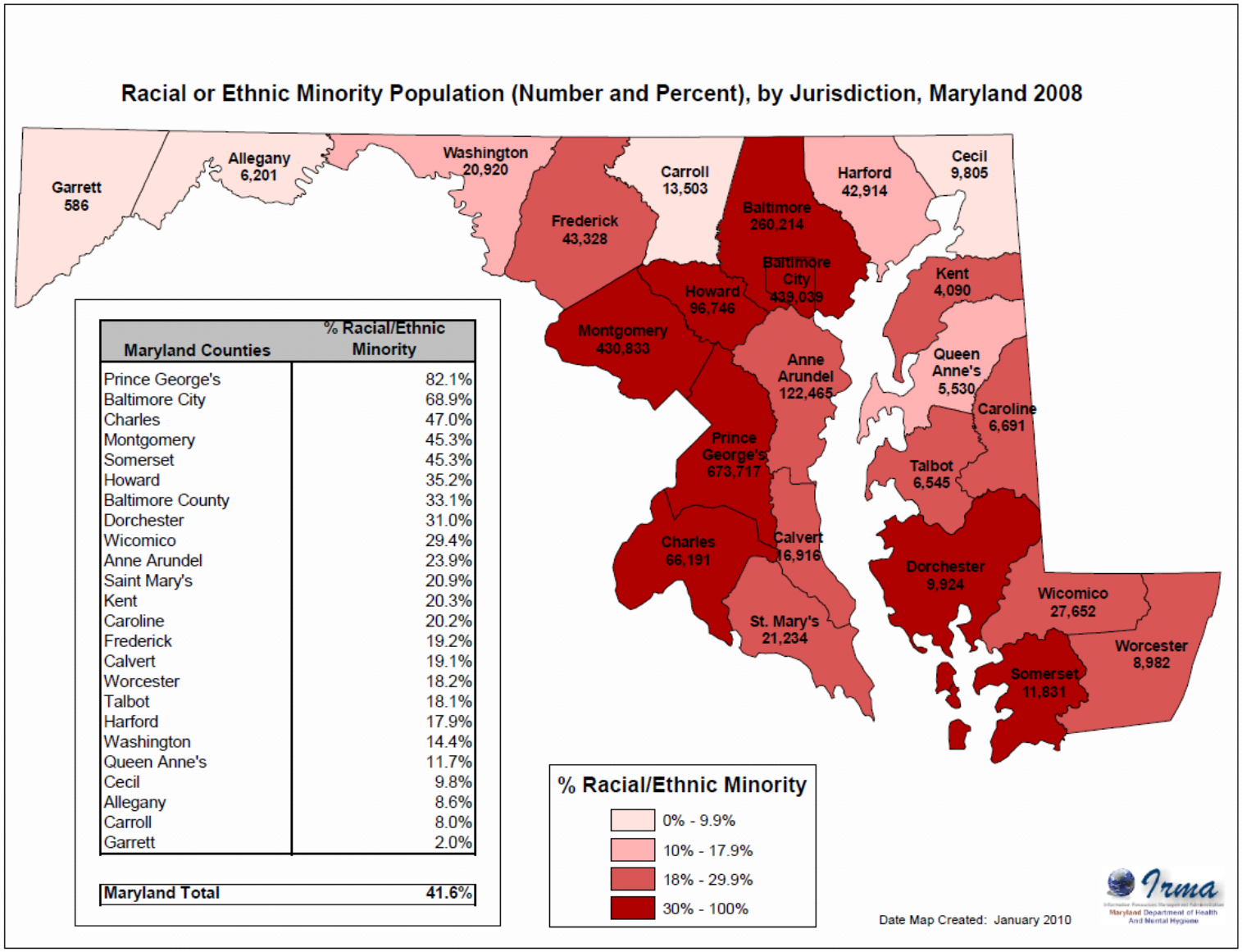
Carlessia A. Hussein, RN, Dr. PH
Director
Minority Health and Health Disparities

December 2009

Minority Population in Maryland

- Maryland is a state where the size of the combined racial and ethnic minority population is beginning to approach the Non-Hispanic White population. The 2008 estimated Maryland population was 41.6% racial or ethnic minority [1], up by 0.3 percentage points from 2007 (41.3%) [2].

- Eight of Maryland's 24 jurisdictions have minority populations over 30%. More than 20% of the population in the Eastern Shore is minority [1] .



Maryland Counties	% Racial/Ethnic Minority
Prince George's	82.1%
Baltimore City	68.9%
Charles	47.0%
Montgomery	45.3%
Somerset	45.3%
Howard	35.2%
Baltimore County	33.1%
Dorchester	31.0%
Wicomico	29.4%
Anne Arundel	23.9%
Saint Mary's	20.9%
Kent	20.3%
Caroline	20.2%
Frederick	19.2%
Calvert	19.1%
Worcester	18.2%
Talbot	18.1%
Harford	17.9%
Washington	14.4%
Queen Anne's	11.7%
Cecil	9.8%
Allegany	8.6%
Carroll	8.0%
Garrett	2.0%
Maryland Total	**41.6%**

Table of Contents

Table of Contents (continued)

List of Tables and Figures

Purpose, Methods, and Data Sources

Purpose

The Office of Minority Health and Health Disparities (MHHD) was established in the Maryland Department of Health and Mental Hygiene in 2004 by legislation passed in the Maryland General Assembly session of that same year. One of the charges to MHHD is the compilation and distribution of minority health and health disparities data. This Second Edition of our Chartbook is one response to that charge.

Adequate and accurate data are essential to any effort to identify and address health problems in general, and health disparities in particular. With regard to health disparities, whether defined by ethnicity/race or other factors (geography, gender, income, education, etc.), data are required to complete three essential tasks:

1. Identify and measure disparities
2. Determine the causes of the disparity and plan interventions
3. Track progress toward eliminating health disparities

The compilation of Maryland health disparities data in this Chartbook is intended to enable each of these three critical functions. The section which follows this introduction contains summaries of Maryland population and disparities data specific to American Indians and Alaska Natives, Asians and Pacific Islanders, Hispanics or Latinos, and Blacks or African Americans. Throughout the Chartbook, ethnic and racial categories used are consistent with the Federal Office of Management and Budget (OMB) 1997 revision of Statistical Policy Directive No. 15, *Race and Ethnic Standards for Federal Statistics and Administrative Reporting* [3] (see page 3 for additional details on terminology for these categories).

The section on Statewide Disparities Data reviews, from a Statewide perspective, disparities in mortality, disparities in the frequency (incidence and/or prevalence) of selected conditions and risk factors, disparities in health care access and utilization, initial work in the analysis of the costs of disparities, and concludes with mortality disparity trends for major chronic conditions.

Health problems and disparities may also exist based on gender and geography. Therefore, the Chartbook contains sections on gender-specific and jurisdiction-specific health.

This Chartbook is detailed, but not exhaustive. This Second Edition updates most but not all of the items contained in the First Edition. The Second Edition focuses on Maryland-specific data, adds information on cost of disparities and now includes trends in mortality disparities over time.

Data Sources and Methods

Because the Black or African American population is 75 percent of Maryland's minority population, data for that group is the most extensive among the minority groups; this allows for a more statistically sound analysis in that population. For this reason, several analyses are limited to comparisons of African Americans to Whites. In addition, the very small size of the Native American population makes analysis of their health disparities especially challenging. Factors in national and Maryland data systems that limit the ability to report information for smaller minority populations include:

- Data that have small numbers for these populations, generating statistically unstable estimates,
- Data that have large numbers of persons who are missing race or ethnicity information. This creates a large potential for error in estimating the smaller racial and ethnic groups, or
- Data that have other technical limitations (misclassification, issues of outmigration, etc.) where the estimates generated are likely to not reflect the true disease burden in these smaller racial and ethnic populations.

The Office of Minority Health and Health Disparities within the Department of Health and Mental Hygiene is continuing to seek approaches to data collection and analysis that will allow us to improve data reporting for Maryland's smaller minority communities.

Age-adjustment

Many of the analyses present age-adjusted data. Age-adjustment is a method of making a fair comparison between two groups regarding a condition whose impact is vastly different at different ages, when the two groups have important differences in their age pattern. For most chronic diseases (which are also the leading causes of death), both the occurrence of the disease, and the mortality from the disease are greatest in persons at or above the age of 65. Racial and ethnic minority populations are younger than the Non-Hispanic White population in Maryland. Age-adjustment solves this problem, and is the correct way to assess disparity for most chronic conditions.

Age stratification, which is presenting data in a variety of age categories, is an alternative method of accounting for age differences between two groups being compared.

Statistical Significance

The CDC Wonder data, U.S. Census data and Maryland Vital Statistics Administration data represent analysis of all events in the years indicated. The original sources of these data do not include statistical significance test (p-values or confidence intervals). Since these data sources are not samples of the population, such significance testing is not essential, as there is no within year sampling error (each year's result reflects the population statistic that year without sampling error). Some analysts use significance tests to reflect how well a particular year is representative of the set of all years. While our data sources do not allow us to do this, in most cases year-to-year variation issues are either minimized by pooling multiple years of data, or by presenting a series of years so that the variation can be seen and a multi-year average calculated.

The Behavioral Risk Factor Surveillance System (BRFSS) produces survey data, which is a sample of the total population. As with any survey that only reaches a small sample of the population, sampling error must be considered. The Maryland BRFSS on-line reporting tool provides 95% confidence intervals, and this allows us to determine whether observed differences are statistically significant (i.e. not just due to a chance sampling error). Statistically significant differences in BRFSS analysis (at alpha level of 0.05) are indicated as such in figures and tables.

We present results from our internal analysis of Maryland Health Services Cost Review Commission (HSCRC) hospital discharge data for the 2004 year to estimate the cost of excess hospital admission rates among Blacks or African Americans. For a particular set of primary admitting diagnoses, in four broad age categories (0-24, 25-44, 45-64, 65+) we calculated an expected Black admission count by multiplying the White admission rate by the Black population. We summed this expected Black admission count over the four age groups. We then determined the percentage of actual Black admissions that were excess, from the formula ([actual – expected] / actual). We then multiplied this percentage of admissions that were excess by the total cost of Black admissions for the particular set of primary admitting diagnoses, to estimate the cost of the excess Black admissions. These estimates represent the cost of the hospital admission **frequency** disparity. There is in fact a second potential contributor to the cost of disparities that is not included in these estimates: the admission **severity** disparity. This second factor arises if there is a disparity in the average length of stay or average intensity of services required between different populations. Our future analysis of costs of disparities will examine this factor as well.

Terminology for Racial and Ethnic Minority Populations

The 1997 update of Directive 15 of the Federal Office of Management and Budget (ref) defined a minimum list of categories for racial and ethnic data collection. In that system of categorization, persons are classified as of Hispanic or Latino ethnicity or not (without regard to race), and then classified into one or more of the following racial categories (without regard to Hispanic ethnicity): Black or African American; Asian; Native Hawaiian or Other Pacific Islander; American Indian or Alaska Native; or White. In Maryland, the Native Hawaiian or Other Pacific Islander category comprises only 0.1% of the population, and is combined with Asian in a category of Asian and Pacific Islander for reporting purposes (which was the categorization before 1997).

In this document, “Black or African American” is used where space permits, and “Black” is used to represent that group in tables and figures where space limitations exist. Similarly, space considerations lead to interchangeable use of “Hispanic or Latino” with “Hispanic”, “Asian or Pacific Islander” with “Asian”, and “American Indian and Alaska Native” with “American Indian”. Finally, some data sources report race without regard to Hispanic or Latino ethnicity, and report Hispanic or Latino ethnicity without regard to race. Other data sources report results in categories of Non-Hispanic race and Hispanic. Thus, in this document where “White” or “Black” appear not specified as Non-Hispanic, those data include both Hispanics or Latinos and persons not Hispanic or Latino. Where a race appears preceded by “Non-Hispanic” or “NH”, those data refer only to the persons of that race who are not Hispanic or Latino.

Summaries of Maryland Disparities Data by Racial and Ethnic Group

American Indian or Alaskan Native Data

The Vital Statistics Administration of the Maryland Department of Health and Mental Hygiene estimates the American Indian or Alaska Native population of Maryland to have been 23,468 persons in 2008 [1], or 0.4% of the State's population (see page 48 for a discussion of underestimation issues for this group).

Health disparities for American Indians or Alaska Natives can be demonstrated in Maryland for the following issues:

- Infant mortality for American Indians or Alaska Natives was 1.8 times higher than for Whites for the period 2004 to 2008 combined [4] (see page 14).

- The rate of new cases of End-stage Renal Disease (kidney disease) for American Indians or Alaska Natives was about 3 times higher than for Whites for the period 1991 to 2001 combined [5] (see page 25).

- The percent of pregnant American Indian or Alaska Native women who received late or no prenatal care was about 1.1 times higher than the percent for White women for the period 2004-2008 combined [4] (see page 31)

Additional disparities for Maryland's American Indian or Alaska Native population are likely to exist, but are difficult to demonstrate at this time due to limitations in our data systems and the small size of this population (see page 2 for a discussion of these data issues).

Asian or Pacific Islander Data

The Vital Statistics Administration of the Maryland Department of Health and Mental Hygiene estimates the Asian or Pacific Islander population of Maryland to have been 305,847 persons in 2008 [1], or 5.4% of the State's population.

Health disparities for Asians or Pacific Islanders can be demonstrated in Maryland for the following issues:

- The rate of new cases of End-stage Renal Disease (kidney disease) for Asians or Pacific Islanders was about 1.3 times higher than for Whites at ages 65 or older for the period 1991 to 2001 combined [5] (see page 25).

- The proportion of adults without health insurance was 1.7 times higher for Asians or Pacific Islanders than for Whites for the period 2004 to 2008 combined [6] (see page 29).

- The proportion of adults unable to afford health care in the prior year was 1.5 times higher for Asians or Pacific Islanders than for Whites for the period 2004 to 2008 combined [6] (see page 30).

- The percent of pregnant Asian or Pacific Islander women who received late or no prenatal care was about 1.3 times higher than the percent for White women for the period 2004-2008 combined [4] (see page 31)

- Asians or Pacific Islanders were half as likely as Whites to have seen a provider for a mental health problem [7] , despite having a similar rate of reporting poor mental health [8] (see page 32).

Additional disparities for Maryland's Asian or Pacific Islander population are likely to exist, but are difficult to demonstrate at this time due to limitations in our data systems and the small size of this population (see page 2 for a discussion of these data issues).

Hispanic or Latino Data

The Vital Statistics Administration of the Maryland Department of Health and Mental Hygiene estimates the Hispanic or Latino population of Maryland to have been 375,830 persons in 2008 [1], or 6.7% of the State's population.

Health disparities for Hispanics or Latinos can be demonstrated in Maryland for the following issues:

- The rate of new cases of End-stage Renal Disease (kidney disease) for Hispanics or Latinos was about 1.3 times higher than for Non-Hispanic Whites at ages 55 or older for the period 1996-2001 combined [5] (see page 26).

- The rate of new cases of HIV for Hispanics or Latinos was about 2.7 times higher than for Whites in 2007 [9] (see page 27)

- The rate of new cases of AIDS for Hispanics or Latinos was about 4.0 times higher than for Whites in 2007 [9] (see page 27).

- The proportion of adults without health insurance was 4.7 times higher for Hispanics or Latinos than for Non-Hispanic Whites for the period 2004 to 2008 combined [6] (see page 29).

- The proportion of adults unable to afford health care in the prior year was 2.9 times higher for Hispanics or Latinos than for Whites for the period 2004 to 2008 combined [6] (see page 30).

- The percent of pregnant Hispanic or Latino women who received late or no prenatal care was about 3.5 times higher than the percent for White women for the period 2004-2008 combined [4] (see page 31)

- Hispanics or Latinos were half as likely as Whites to have seen a provider for a mental health problem [7], despite having a similar rate of reporting poor mental health [8] (see page 32).

Additional disparities for Maryland's Hispanic or Latino population are likely to exist, but are difficult to demonstrate at this time due to limitations in our data systems and the small size of this population (see page 2 for more discussion).

Black or African American Data

The Vital Statistics Administration of the Maryland Department of Health and Mental Hygiene estimates the Black or African American population of Maryland to have been 1,692,495 persons in 2008 [1], or 30.0% of the State's population.

With this large a population, Health disparities for Blacks or African Americans can be demonstrated in Maryland for a wide variety of issues:

- The age-adjusted death rate from all causes combined was 1.25 times higher for Blacks or African Americans than for Whites in 2008 [1]. For specific causes of death, compared to Whites, the Black or African American death rates were (see page 13):
  - 1.3 times higher for heart disease
  - 1.2 times higher for cancer
  - 1.2 times higher for stroke
  - 2.1 times higher for diabetes
  - 1.9 times higher for septicemia
  - 2.0 times higher for kidney diseases
  - 5.9 times higher for homicide
  - 15.5 times higher for HIV/AIDS [1]

- Infant mortality for Blacks or African Americans was 2.6 times higher than for Whites for the period 2004 to 2008 combined [4] (see page 14).

- Black or African American adults reported higher prevalence of the following compared to Non-Hispanic whites for the period 2004 to 2008 [6] (see pages 15 to 24):
  - a diagnosis of diabetes at all adult ages
  - a diagnosis of hypertension (high blood pressure) at all adult ages
  - current cigarette smoking for ages 45 and older.

- The rate of new cases of End-stage Renal Disease (kidney disease) for Blacks or African Americans was about 3.0 times higher than for Whites for the period 1991-2001 combined [5] (see page 25).

- The rate of new cases of HIV for Blacks or African Americans was about 11 times higher than for Whites in 2007 [9] (see page 27)

- The rate of new cases of AIDS for Blacks or African Americans was about 13 times higher than for Whites in 2007 [9] (see page 27).

- Compared to Whites, in 2006 Black or African American adults had
  - 1.3 times higher prevalence of asthma
  - 4.3 times higher emergency department visit rate for asthma
  - 2.4 times higher hospitalization rate for asthma
  - 2.4 times higher mortality rate for asthma [10] (see page 28).

- The proportion of adults without health insurance was 2.1 times higher for Blacks or African Americans than for Non-Hispanic Whites for the period 2004 to 2008 combined [6] (see page 29).

- The proportion of adults unable to afford health care in the prior year was 1.8 times higher for Blacks or African Americans than for Whites for the period 2004 to 2008 combined [6] (see page 30).

- The percent of pregnant Black or African American women who received late or no prenatal care was about 2.9 times higher than the percent for White women for the period 2004-2008 combined [4] (see page 31).

- Blacks or African Americans were half as likely as Whites to have seen a provider for a mental health problem [7], despite having a greater rate of reporting poor mental health [8] (see page 32).

- Our office has estimated that the hospital cost (not including the physician fee component of hospitalization or any emergency department cost prior to the admission) of excess Black or African American admissions in Maryland in 2004 was at least $ 481 million [11] (see page 33).

Statewide Disparities Data

Minority Population in Maryland

- Maryland is a state where the size of the combined racial and ethnic minority population is beginning to approach the Non-Hispanic White population. The 2008 estimated Maryland population was 41.6% minority [1], up by 0.3 percentage points from 2007 (41.3%) [2] .

- Eight of Maryland's 24 jurisdictions have minority populations over 30%. More than 20% of the population in the Eastern Shore is minority [1].

Table 1. Maryland Population, July 1 2008 by Race and Ethnicity

Race	All Ethnicity		Non-Hispanic		Hispanic	
White	**3,611,787**	**64.1%**	**3,287,740**	**58.4%**	**324,047**	**5.8%**
Non-White	**2,021,810**	**35.9%**	**1,970,027**	**35.0%**	**51,783**	**0.9%**
Black	***1,692,495***	***30.0%***				
Asian/Pac Isle	***305,847***	***5.4%***				
American Indian	***23,468***	***0.4%***				
MD Total	**5,633,597**	**100.0%**	**5,257,767**	**93.3%**	**375,830**	**6.7%**

Source: ***Maryland Vital Statistics Annual Report 2008*** **[1]**

In the sections which follow Table 2, some reporting is limited to comparisons of the Black or African American population to the White population. Where data are not presented for American Indians, Asians and Pacific Islanders, or Hispanics/Latinos, this is because either

- The data have small numbers for these populations, generating statistically unstable estimates,

- The data have large numbers of persons who are missing race or ethnicity information. This creates a large potential for error in estimating the smaller racial and ethnic groups, or

- The data have other technical limitations (misclassification, issues of outmigration, etc.) where the estimates generated are likely to not reflect the true disease burden in these smaller populations

Table 2. Minority Population by Jurisdiction, Maryland 2008

REGION AND POLITICAL SUBDIVISION	TOTAL	Non Hispanic White	Minority Population	Percent Minority	Percent African American	Percent Asian/PI	Percent AI/AN	Percent Hispanic
MARYLAND	**5,633,597**	**3,287,740**	**2,345,857**	**41.6%**	**30.0%**	**5.4%**	**0.4%**	**6.7%**
NORTHWEST AREA	**473,041**	**402,006**	**71,035**	**15.0%**	**8.7%**	**2.5%**	**0.3%**	**3.9%**
GARRET	29,698	29,112	586	2.0%	1.0%	0.2%	0.1%	0.7%
ALLEGANY	72,238	66,037	6,201	8.6%	6.8%	0.7%	0.2%	1.1%
WASHINGTON	145,384	124,464	20,920	14.4%	10.2%	1.5%	0.2%	2.7%
FREDERICK	225,721	182,393	43,328	19.2%	9.4%	3.9%	0.3%	6.0%
BALTIMORE METRO AREA	**2,620,026**	**1,645,145**	**974,881**	**37.2%**	**29.8%**	**4.2%**	**0.4%**	**3.4%**
BALTIMORE CITY	636,919	197,880	439,039	68.9%	64.3%	2.2%	0.4%	2.7%
BALTIMORE COUNTY	785,618	525,404	260,214	33.1%	25.6%	4.5%	0.4%	3.1%
ANNE ARUNDEL	512,790	390,325	122,465	23.9%	15.9%	3.5%	0.4%	4.5%
CARROLL	169,353	155,850	13,503	8.0%	4.2%	1.8%	0.2%	1.9%
HOWARD	274,995	178,249	96,746	35.2%	18.0%	12.4%	0.3%	5.0%
HARFORD	240,351	197,437	42,914	17.9%	12.8%	2.4%	0.3%	2.7%
NATIONAL CAPITAL AREA	**1,771,532**	**666,982**	**1,104,550**	**62.3%**	**40.3%**	**9.6%**	**0.5%**	**13.9%**
MONTGOMERY	950,680	519,847	430,833	45.3%	17.5%	14.2%	0.5%	14.8%
PRINCE GEORGE'S	820,852	147,135	673,717	82.1%	66.7%	4.3%	0.6%	12.8%
SOUTHERN AREA	**331,040**	**226,699**	**104,341**	**31.5%**	**25.7%**	**2.4%**	**0.6%**	**3.2%**
CALVERT	88,698	71,782	16,916	19.1%	14.8%	1.6%	0.4%	2.5%
CHARLES	140,764	74,573	66,191	47.0%	39.9%	2.8%	0.8%	3.9%
SAINT MARY'S	101,578	80,344	21,234	20.9%	15.4%	2.4%	0.4%	2.9%
EASTERN SHORE AREA	**437,958**	**346,908**	**91,050**	**20.8%**	**16.8%**	**1.2%**	**0.3%**	**2.9%**
CECIL	99,926	90,121	9,805	9.8%	6.1%	1.1%	0.4%	2.4%
KENT	20,151	16,061	4,090	20.3%	16.1%	0.8%	0.2%	3.6%
QUEEN ANNE'S	47,091	41,561	5,530	11.7%	8.4%	1.2%	0.2%	2.1%
CAROLINE	33,138	26,447	6,691	20.2%	14.6%	0.8%	0.6%	4.8%
TALBOT	36,215	29,670	6,545	18.1%	14.1%	1.0%	0.2%	3.2%
DORCHESTER	31,998	22,074	9,924	31.0%	27.9%	1.0%	0.2%	2.2%
WICOMICO	94,046	66,394	27,652	29.4%	24.3%	1.8%	0.2%	3.4%
SOMERSET	26,119	14,288	11,831	45.3%	42.1%	0.9%	0.4%	2.4%
WORCESTER	49,274	40,292	8,982	18.2%	14.8%	1.0%	0.2%	2.4%

Source: *Maryland Vital Statistics Annual Report 2008* [1]

Disparities in Mortality

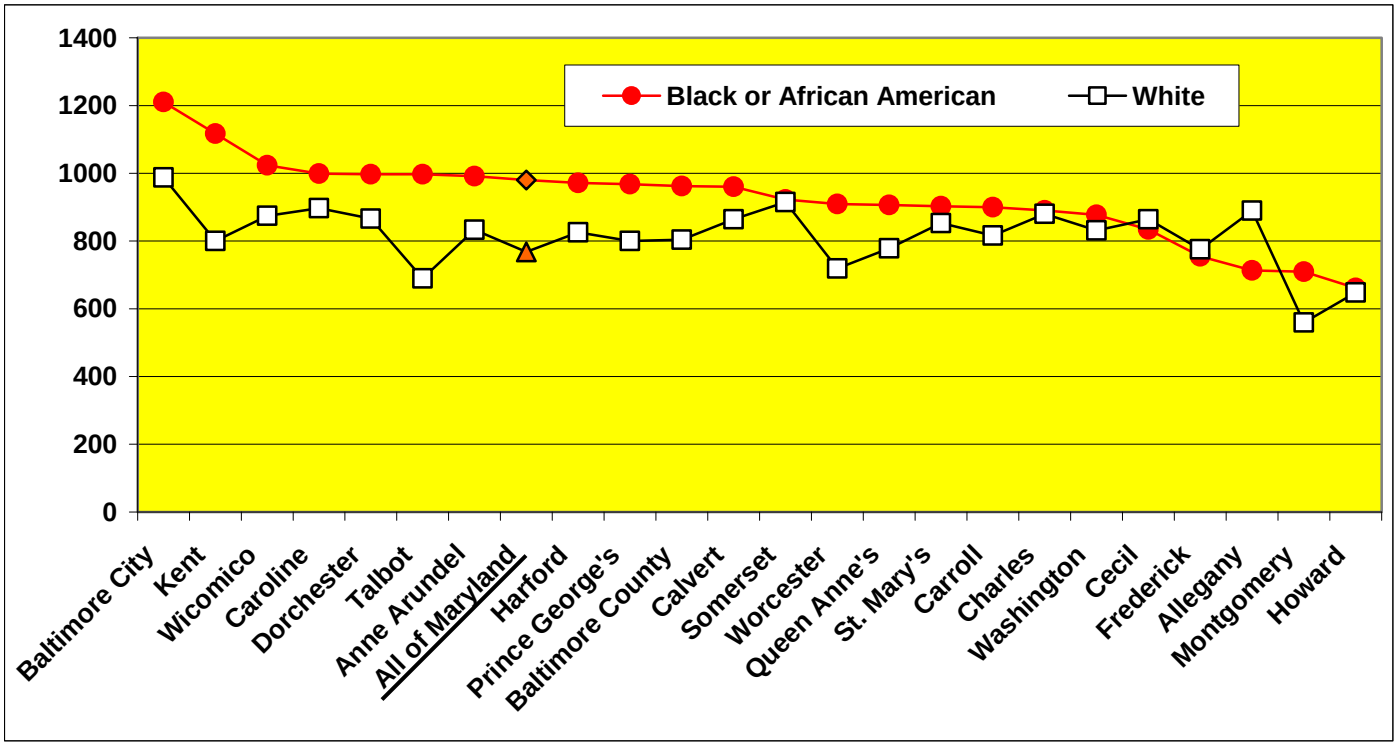
Geographic Distribution of Mortality Disparities

Figure 1 displays mortality data for Blacks or African Americans and Whites for 2004 through 2006 combined [12], and shows that for those years, Black or African American death rates exceeded White death rates in 20 of the 23 Maryland jurisdictions where the age-adjusted rates could be calculated.

While Baltimore city had the highest mortality rates for both Blacks and Whites, the disparity in mortality, expressed as the difference between the rates, was larger in some other jurisdictions than in Baltimore City. Also apparent was a sizeable geographic difference in mortality rates within each racial group: mortality ranged from below 700 deaths per 100,000 to above 1200 for Blacks or African Americans; and ranged from below 600 to nearly 1000 deaths per 100,000 for Whites.

The mortality disparity by jurisdiction could not be calculated for other minority groups.

Figure 1. Age-Adjusted All-Cause Mortality (rate per 100,000) by Black or White Race and by Jurisdiction, Maryland 2004- 2006 Pooled

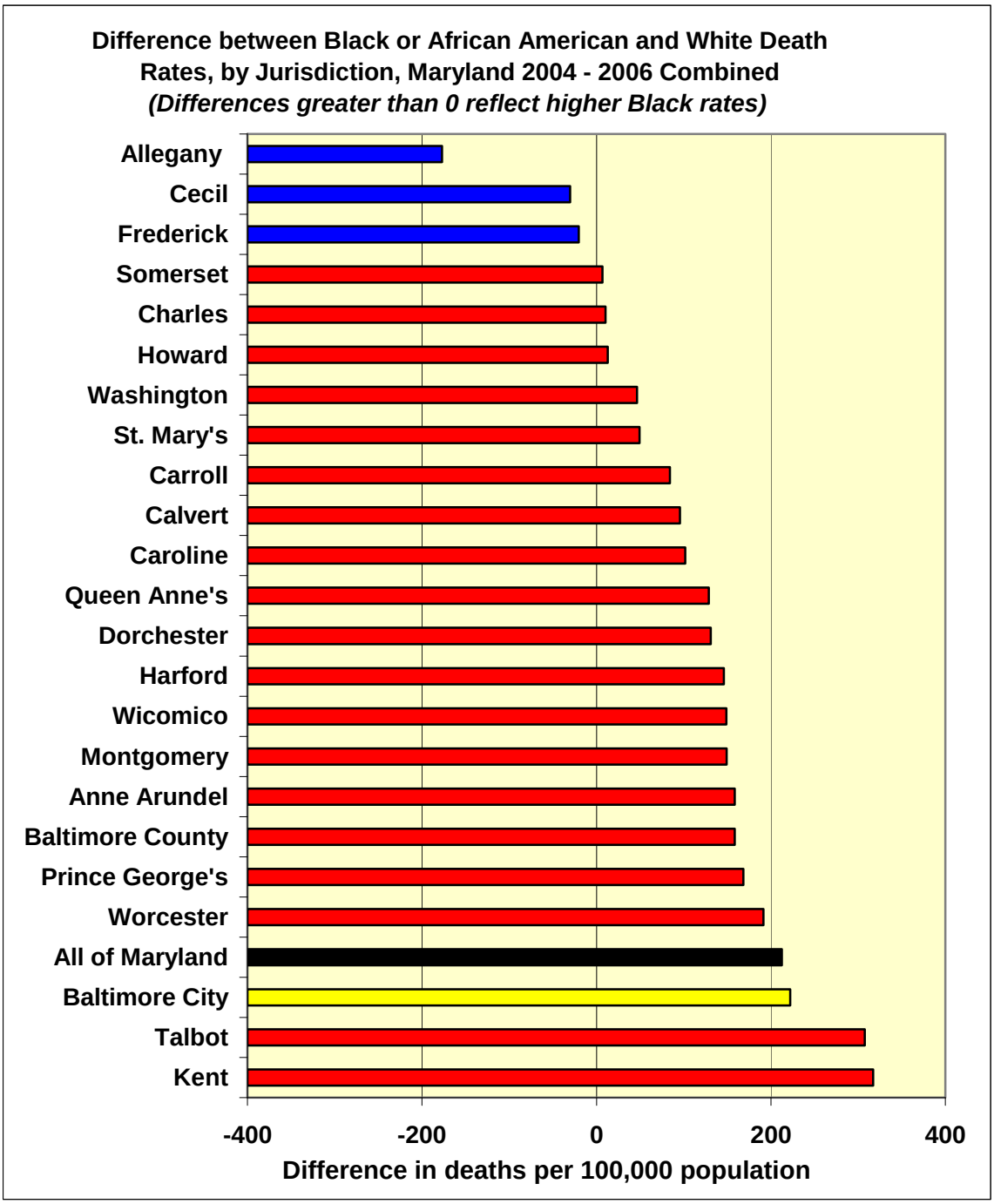


Age-adjusted death rates for Blacks could not be calculated for Garrett County

Source: CDC Wonder Mortality Data 2004-2006 [12]

Figure 2 displays the mortality disparity by jurisdiction expressed as the difference between the Black mortality rate and the White mortality rate for 2004 to 2006 combined [12]. During this period, the White death rate exceeded the Black or African American rate in three jurisdictions. In the 20 other jurisdictions where rates could be calculated, the Black or African American death rate exceeded the White rate.

Figure 2. Black vs. White Death Rate Differences, by Jurisdiction, 2004-2006



Source: CDC Wonder Mortality Data 2004-2006 [12]

Mortality Disparities for Leading Causes of Death

- Nine of the top 14 causes of death show a mortality disparity between Blacks or African Americans and Whites.
- Black or African American age-adjusted heart disease mortality exceeds that for Whites by 52.1 deaths per 100,000 population.
- Blacks or African Americans are 16 times more likely to die from HIV/AIDS [1].

Table 3. Black or African American vs. White Mortality Disparity, 14 Leading Causes of Death, Maryland 2008

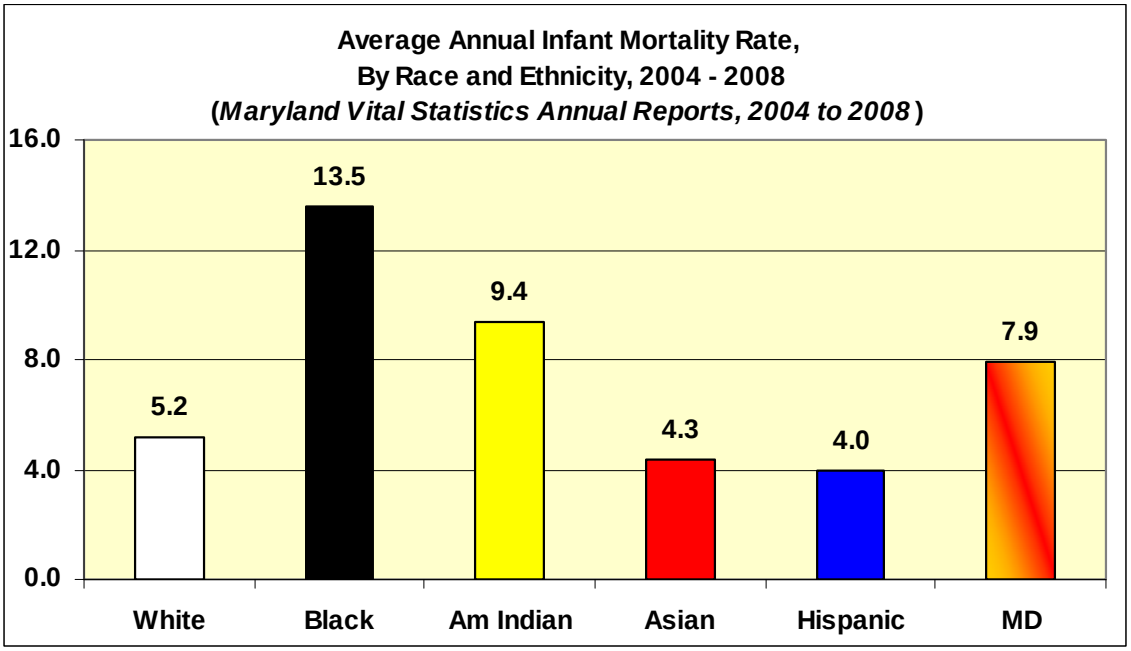
Rate Ratio Disparity Rank	Rate Difference Disparity Rank	Statewide Cause of Death Rank*	Disease	Age-adjusted Mortality per 100,000 Black	White	Ratio	Age-adjusted Difference per 100,000
			All Causes	919.5	736.4	1.25	183.1
6	1	1	Heart Disease	240.1	188	1.28	52.1
7	2	2	Cancer	212.8	175	1.22	37.8
8	8	3	Stroke	45.1	38.3	1.18	6.8
		4	Chronic lung Disease	21.4	40	0.54	-18.6
		5	Accidents	24.8	26.4	0.94	-1.6
3	4	6	Diabetes	37.2	17.6	2.11	19.6
9	9	7	Alzheimer's Disease	19.2	18.6	1.03	0.6
		8	Flu&Pneumonia	16.8	18.3	0.92	-1.5
5	6	9	Septicemia	27.7	14.8	1.87	12.9
4	7	10	Kidney diseases	21.8	11.1	1.96	10.7
2	5	11	Homicide	21.7	3.7	5.86	18.0
		12	Suicide	4.4	10.5	0.42	-6.1
1	3	13	HIV/AIDS	21.7	1.4	15.50	20.3
		14	Chronic Liver Disease	6.3	7.2	0.88	-0.9

(Yellow highlight indicates Black or African American death rate higher than the White death rate)
Source: ***Maryland Vital Statistics Annual Report 2008*** **[1]**

Infant Mortality Disparities

Blacks or African Americans and American Indians in Maryland experience infant mortality rates that are 2.6 and 1.8 times higher, respectively, than the rate among Whites, as shown below [4].

Figure 3. Average Annual Infant Mortality Rate, by Race and Ethnicity, Maryland 2004 to 2008



Source: Maryland Vital Statistics Annual Reports 2004 to 2008 [4]

Infant mortality is the most extreme adverse pregnancy outcome. The rate of neonatal intensive care unit (NICU) admissions (percent of all newborns that spend some time in NICU at birth) can be determined. In 2004 in Maryland,

- 7.8% of Black or African American newborns had a NICU admission
- 5.0% of White newborns had a NICU admission [11]

In addition, in 2004 the average cost for African American NICU admissions was 53% higher than the White average cost, indicating more severe problems for the African American NICU newborns[11] .

Disparities in Reported Frequency (Incidence or Prevalence) of Selected Conditions and Risk Factors

The first four conditions discussed in this section, Diabetes, High Blood Pressure, High Cholesterol, and Smoking, have prevalence data that come from a survey of a fraction of the population (the Behavioral Risk Factor Surveillance System, or BRFSS). Estimates from such survey data (from a sample of the population) have a margin of error associated with them. The margin of error is smaller when the sample is larger. This means that our smaller racial and ethnic groups tend to have large margins of error for their estimates.

The BRFSS, a telephone survey, asks respondents if they have a diagnosis of a condition, and thus the estimates cannot count the undiagnosed disease in the population. Because minorities have less health care access, for the diagnosis of conditions, lower rates for minorities may be due to poor health care access, rather than to having less disease.

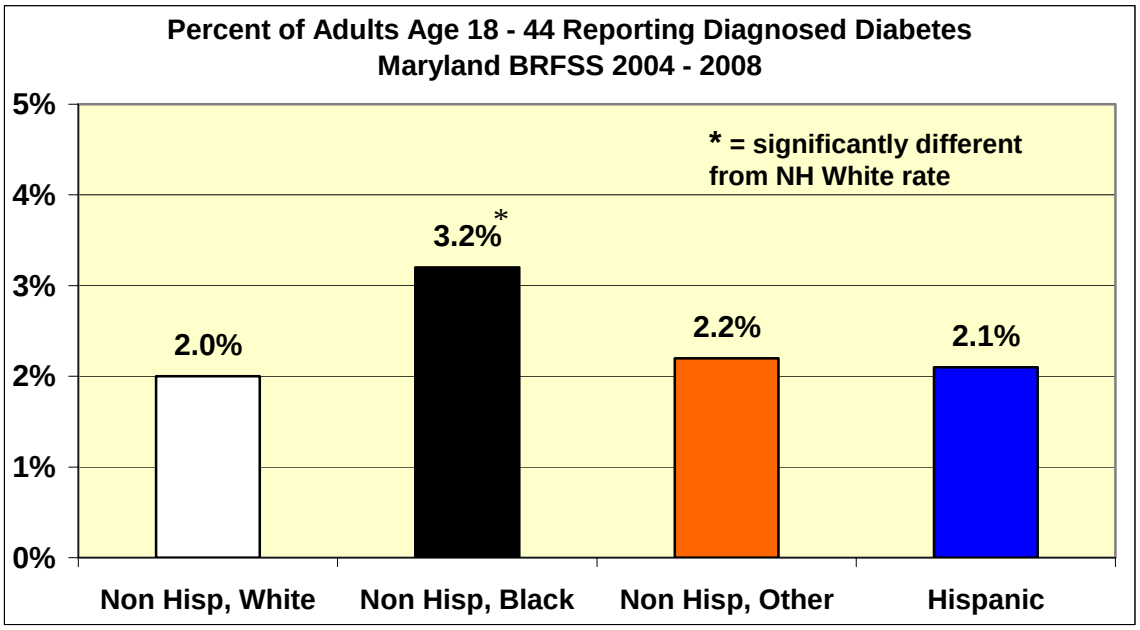
For these two reasons, the failure to find a statistically significant (larger than the margin of error) higher disease burden for our smaller minority populations does not guarantee that they do not have a disparity for these conditions.

Diagnosed Diabetes

For the period 2004 to 2008, Black or African American adults of all ages had **higher rates** of diagnosed diabetes compared to Non-Hispanic Whites that exceeded the margin or error [6].

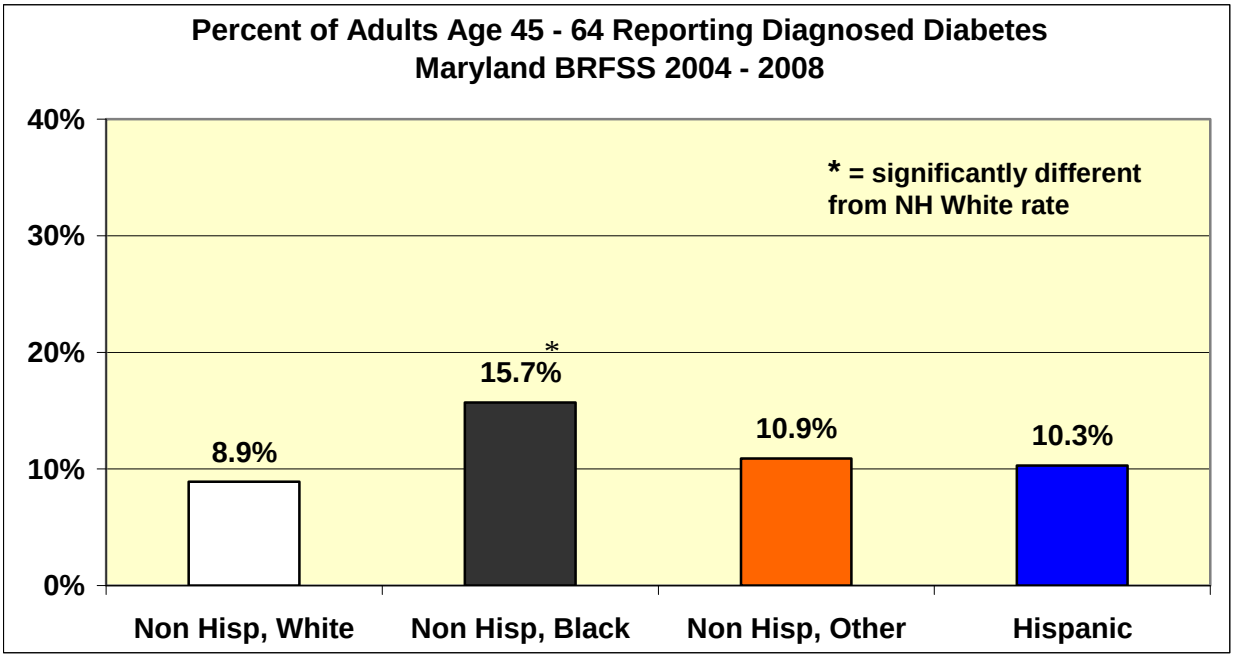
For middle and older ages, the other non-White racial and ethnic groups, showed higher estimates for rates of diagnosed diabetes that **did not** exceed the margin of error [6].

Figure 4. % of Adults Age 18-44 Reporting Diagnosed Diabetes, Maryland 2004-2008



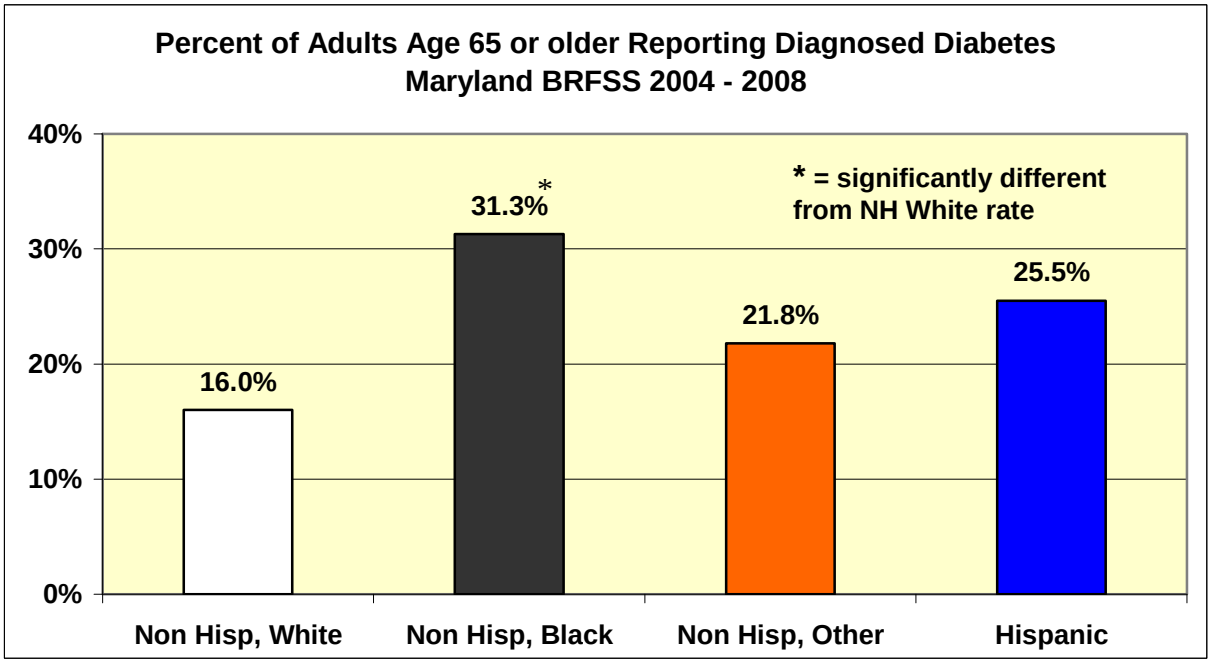
Source: Maryland BRFSS Data 2004 to 2008 [6]

Figure 5. % of Adults Age 45-64 Reporting Diagnosed Diabetes, Maryland 2004-2008



Source: Maryland BRFSS Data 2004 to 2008 [6]

Figure 6. % of Adults Age 65 or Older Reporting Diagnosed Diabetes, Maryland 2004-08



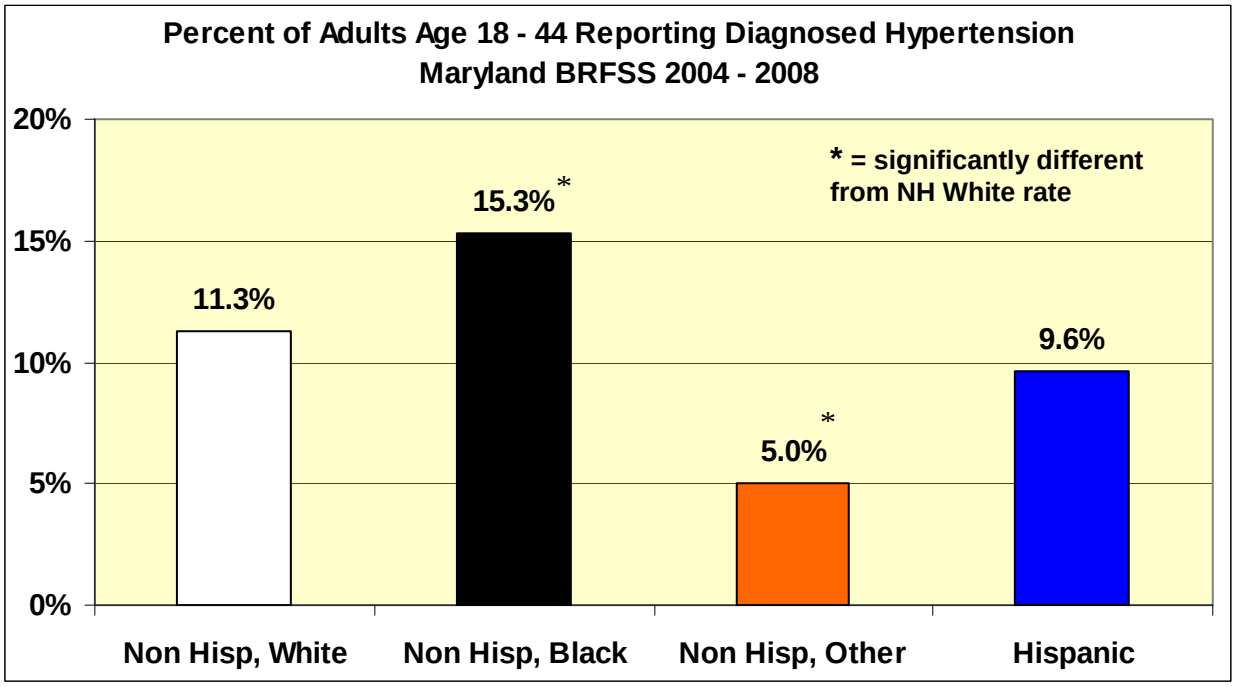
Source: Maryland BRFSS Data 2004 to 2008 [6]

Diagnosed Hypertension (High Blood Pressure)

For the period 2004 to 2008 Black or African American adults of all ages had **higher rates** of diagnosed hypertension compared to Non-Hispanic Whites that exceeded the margin of error of the survey [6].

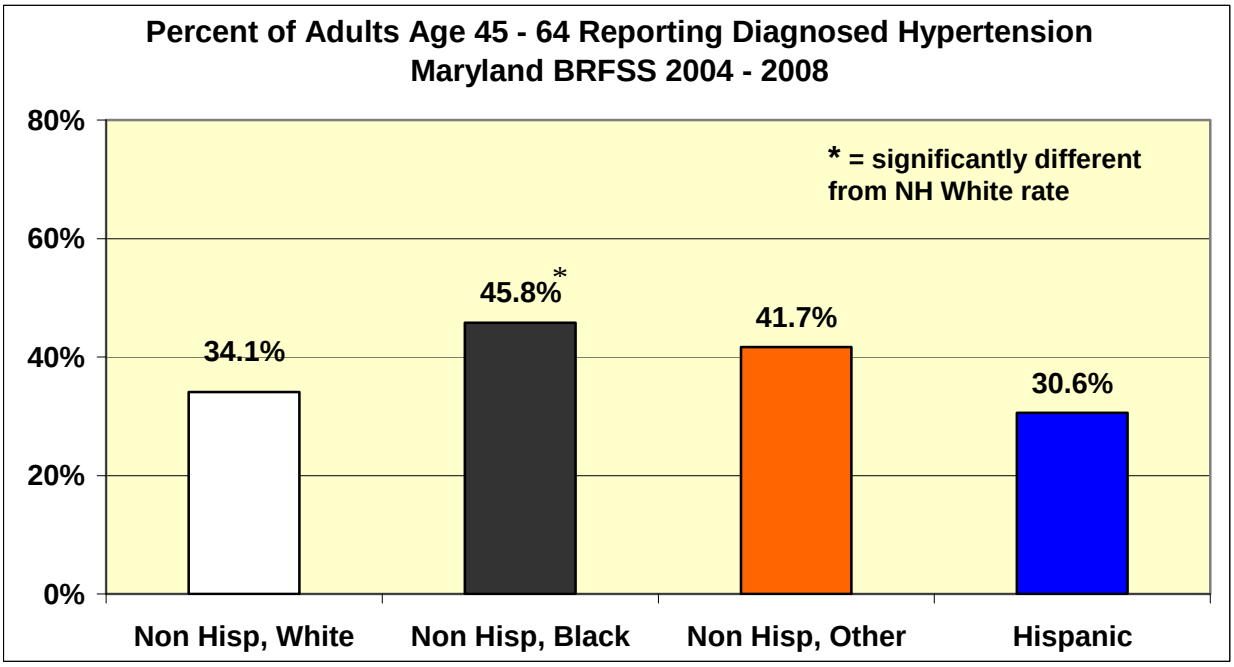
The group "Non-Hispanic Other" comprised of Asian and Pacific Islanders (about 90% of the group) and American Indians and Alaska Natives had lower rates of diagnosed hypertension than Non-Hispanic Whites that exceeded the margin of error of the survey for the age group 18 to 44 [6]. This may reflect poor access to care and to diagnosis, rather then less hypertension in this population.

Figure 7. % of Adults Age 18-44 Reporting Diagnosed Hypertension, Maryland 2004-2008



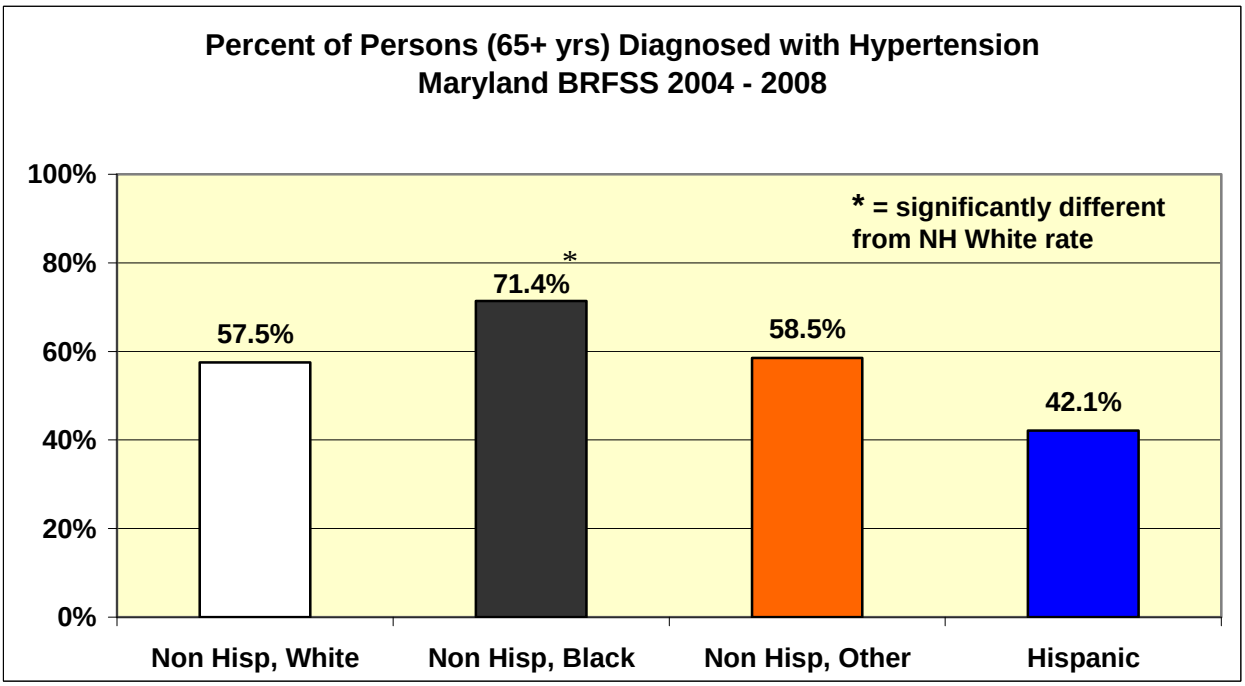
Source: Maryland BRFSS Data 2004 to 2008 [6]

Figure 8. % of Adults Age 45-64 Reporting Diagnosed Hypertension, Maryland 2004-2008



Source: Maryland BRFSS Data 2004 to 2008 [6]

Figure 9. % of Adults Age 65 or Older Reporting Diagnosed Hypertension, Maryland 2004-08



Source: Maryland BRFSS Data 2004 to 2008 [6]

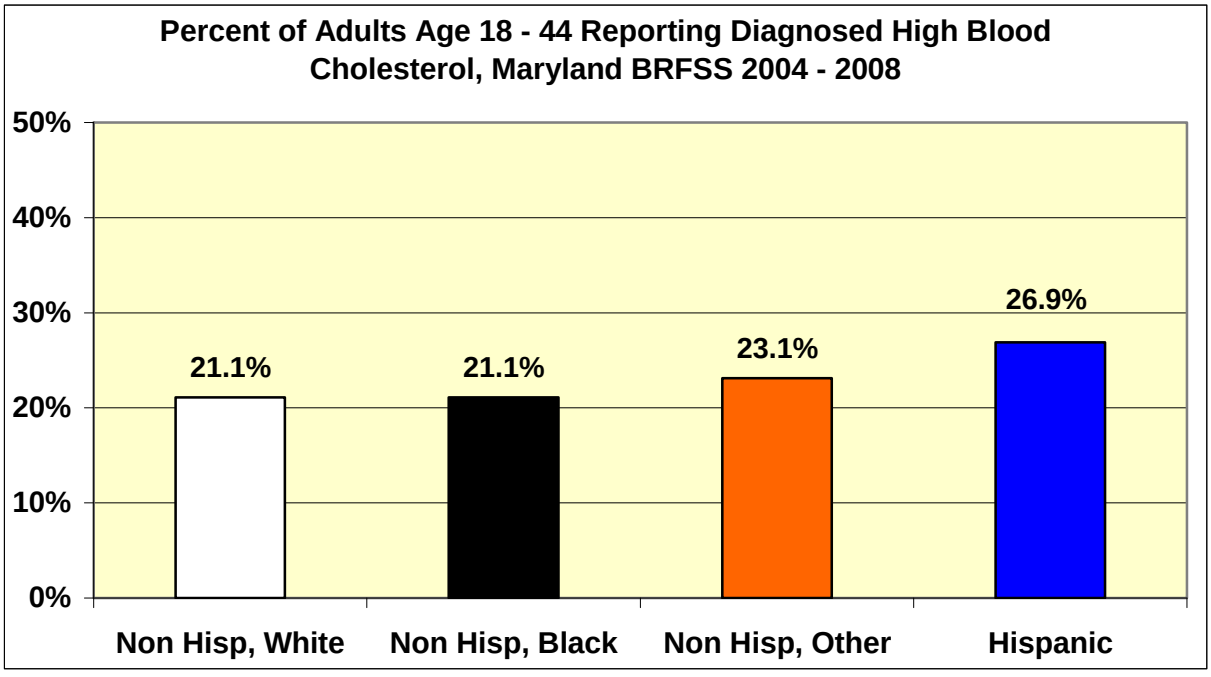
Diagnosed High Cholesterol

The only difference in reported prevalence of a diagnosis of high cholesterol between Non-Hispanic Whites and a minority population for the period 2004 to 2008 was for Blacks or African Americans ages 45 to 64, whose rates were lower [6].

The estimates for the young adult minority populations (ages 18 to 44) were similar or slightly higher than for the Non-Hispanic White population, and not beyond the margin of error of the survey. In contrast, the estimates for the middle and older age minority populations were lower than the Non-Hispanic White population, although generally not beyond the margin of error for the survey [6].

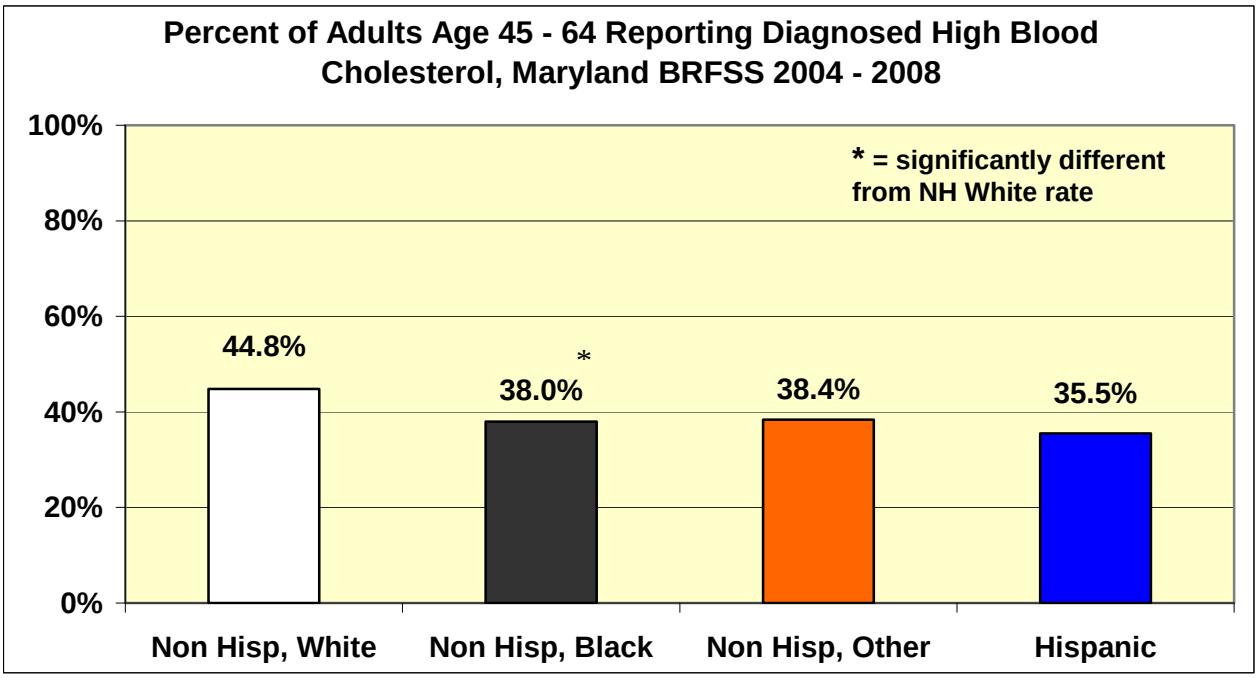
This apparent reversal of the relationship between young and old groups may represent issues of access to diagnosis, but may also represent a worsening of cholesterol status in generations born in the United States (the young) compared to generations who migrated to the United States (the older generations), as the U.S.- born generations adopt the less healthy eating and activity patterns of the United States.

Figure 10. % of Adults Age 18-44 Reporting Diagnosed High Cholesterol, Maryland 2004-2008



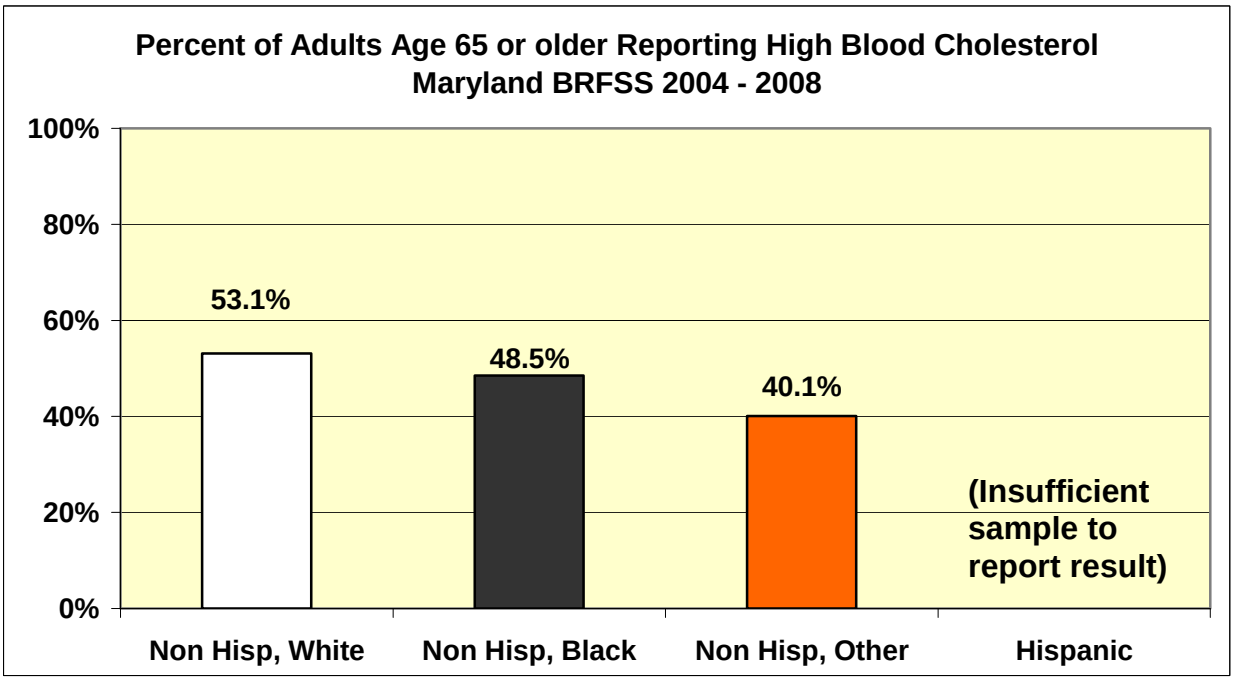
Source: Maryland BRFSS Data 2004 to 2008 [6]

Figure 11. % of Adults Age 45-64 Reporting Diagnosed High Cholesterol, Maryland 2004-2008



Source: Maryland BRFSS Data 2004 to 2008 [6]

Figure 12. % of Adults Age 65 or Older Reporting Diagnosed High Cholesterol, Maryland 2004-2008



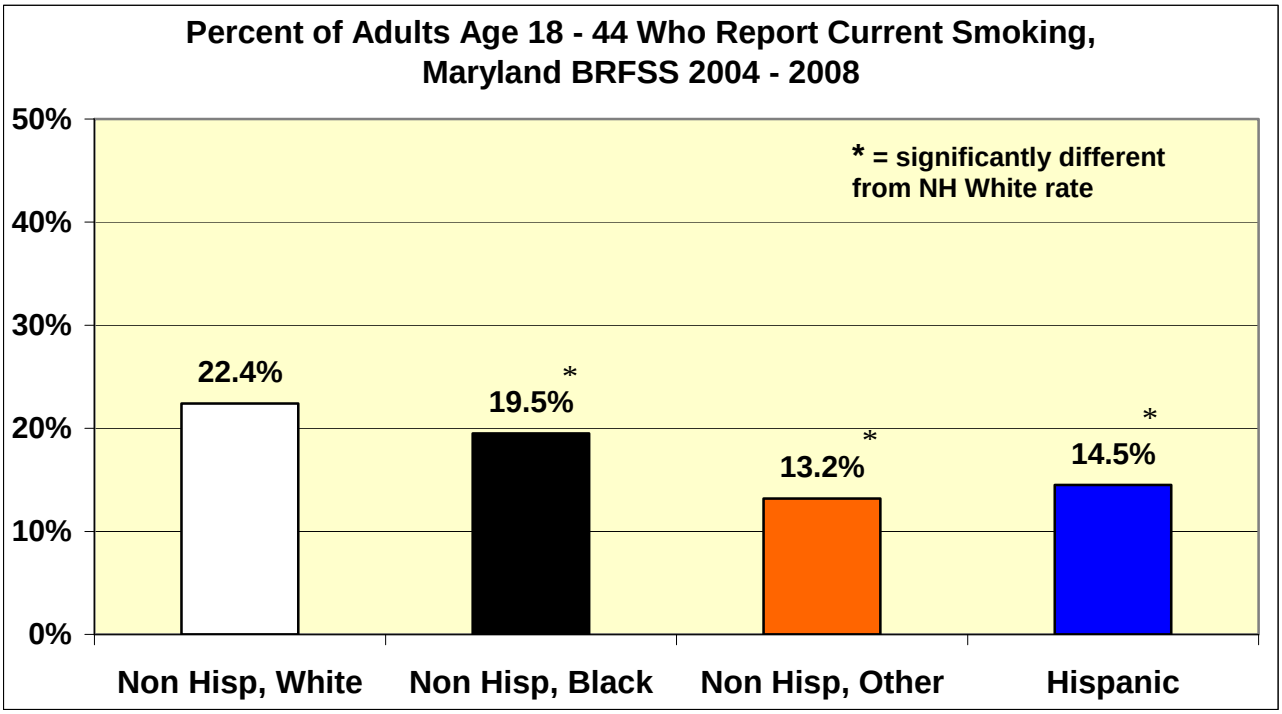
Source: Maryland BRFSS Data 2004 to 2008 [6]

Current Cigarette Smoking

Current smoking rates for the period 2004 to 2008 were higher for Blacks or African Americans than for Non-Hispanic Whites for adults 45 and older, and these differences exceeded the margin of error for the survey [6].

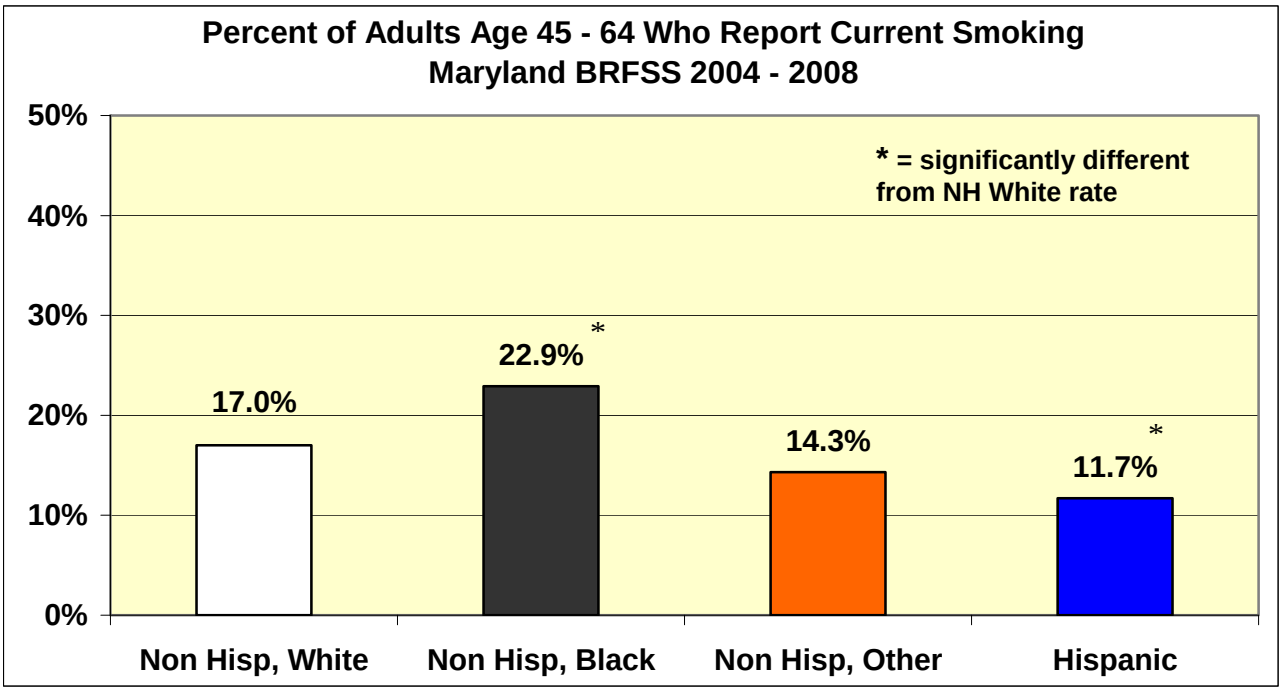
Current smoking rates were lower for minorities than for Non-Hispanic Whites, exceeding the margin of error, for all minority groups at ages 18 to 44 and for Hispanics at ages 45 to 64 [6].

Figure 13. % of Adults Age18-44 Who Report Current Cigarette Smoking, Maryland 2004-2008



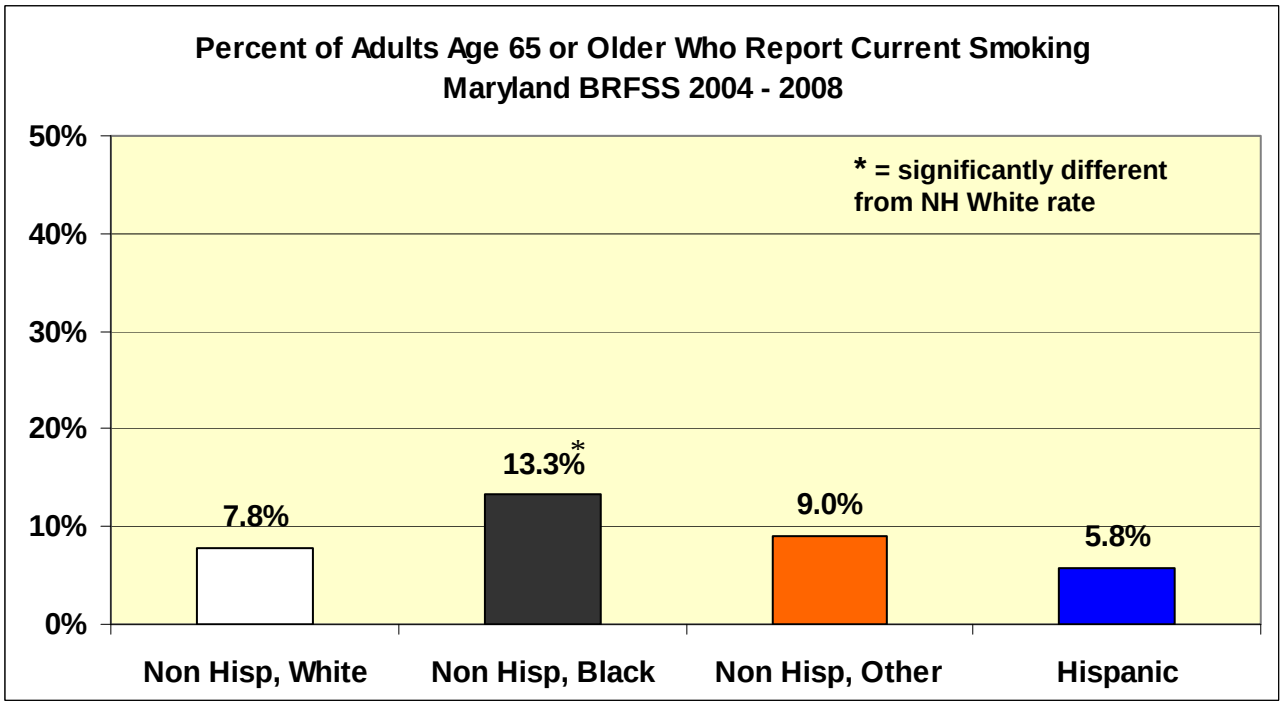
Source: Maryland BRFSS Data 2004 to 2008 [6]

Figure 14. % of Adults Age 45-64 Who Report Current Cigarette Smoking, Maryland 2004-2008



Source: Maryland BRFSS Data 2004 to 2008 [6]

Figure 15. % of Adults Age 65 or Older Who Report Current Cigarette Smoking, Maryland 2004-2008



Source: Maryland BRFSS Data 2004 to 2008 [6]

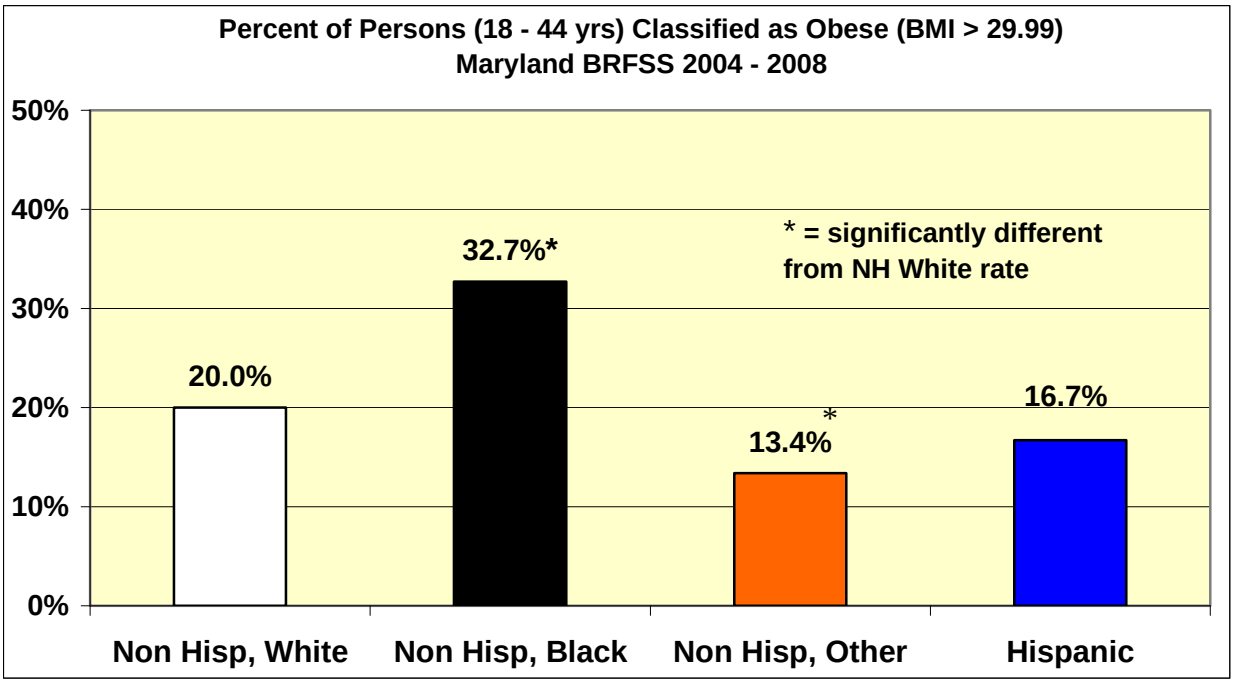
Obesity

For the period 2004 to 2008, Black or African American adults of all ages had **higher rates** of obesity compared to Non-Hispanic Whites that exceeded the margin or error of the survey [6].

The group "Non-Hispanic Other" comprised of Asian and Pacific Islanders (about 90% of the group) and American Indians and Alaska Natives had lower rates of obesity than Non-Hispanic white, that exceeded the margin of error of the survey for ages 18 to 64 [6].

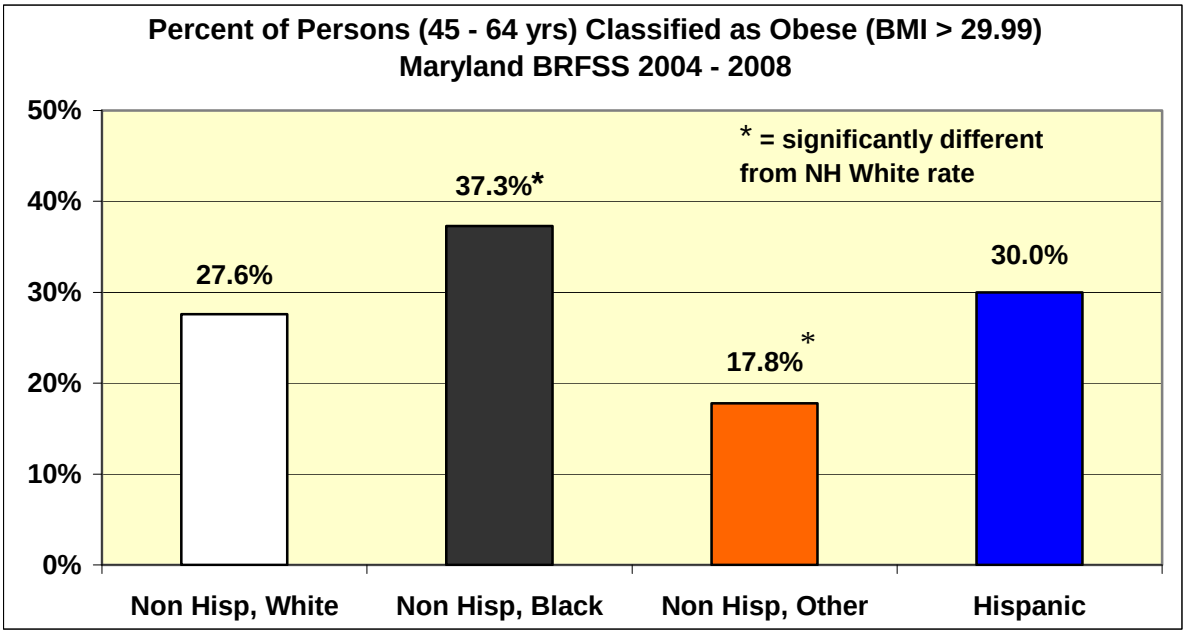
Rates of obesity are increasing throughout our population, and with its associations with heart disease, cancer, stroke, diabetes, hypertension, and high cholesterol, the current epidemic of obesity is a threat to public health on a par with the threat from tobacco use.

Figure 16. Percent of Adults Age 18 to 44 Classified as Obese, Maryland 2004-2008



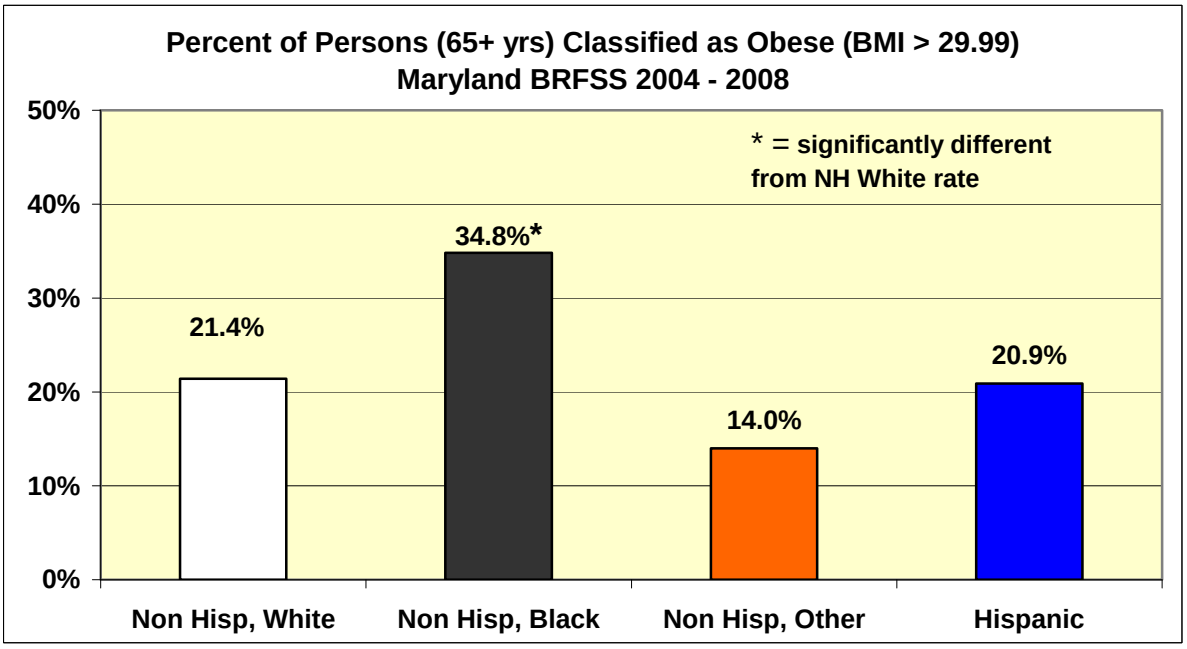
Source: Maryland BRFSS Data 2004 to 2008 [6]

Figure 17. Percent of Adults Age 45-64 Classified as Obese, Maryland 2004-2008



Source: Maryland BRFSS Data 2004 to 2008 [6]

Figure 18. Percent of Adults Age 65 or Older Classified as Obese, Maryland 2004-08

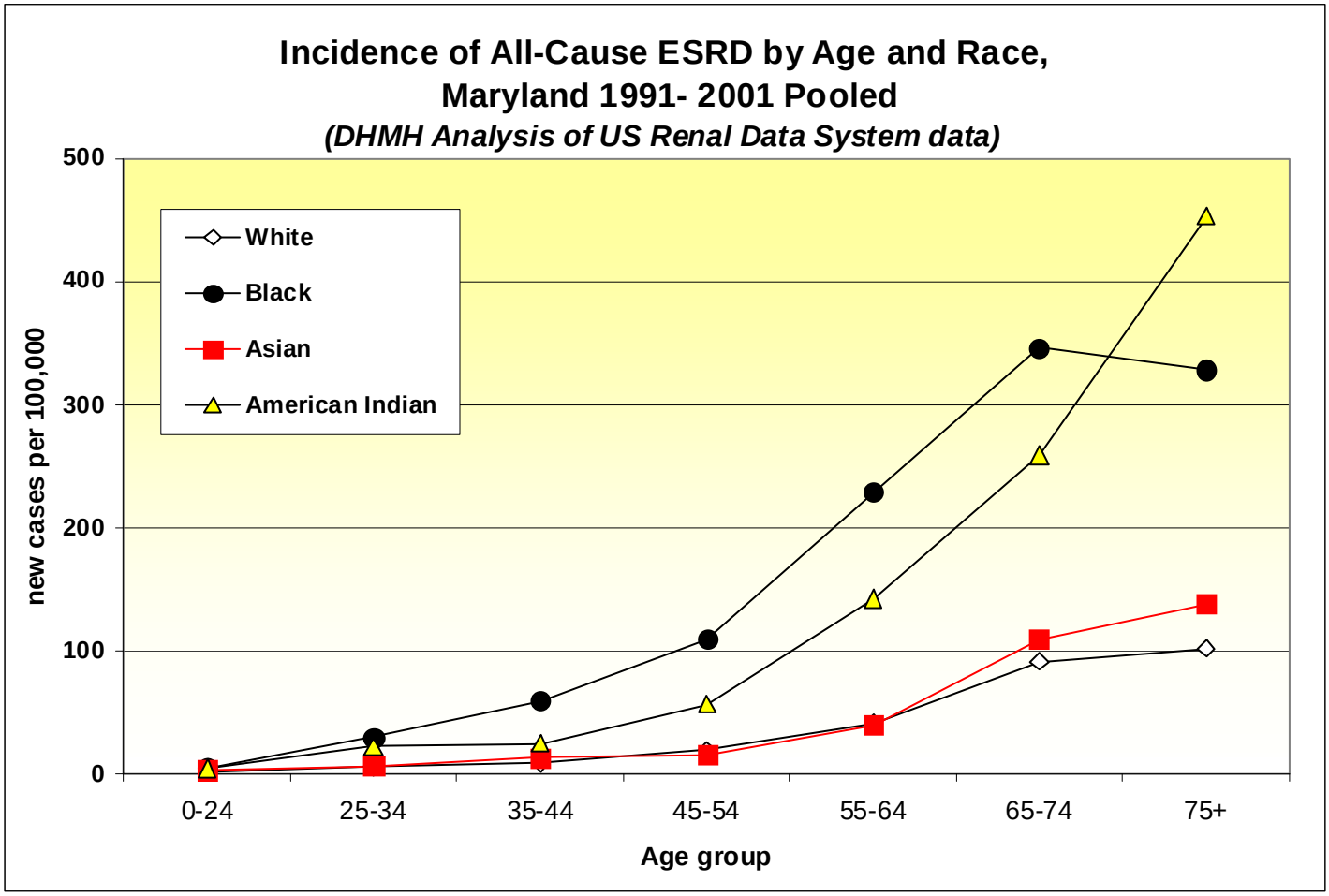


Source: Maryland BRFSS Data 2004 to 2008 [6]

Disparities in the Burden of End-Stage Renal Disease (ESRD)

Based on pooled data from 1991 through 2001, the rates of new cases of End-Stage Renal Disease (kidney disease, referred to as ESRD) in Maryland have been about three times higher for Blacks or African Americans and American Indians than for Whites . In addition, the rates for Asians/Pacific Islanders have been about 1.3 times higher than White rates for persons age 65 or older [5].

Figure 19. Incidence of All-cause ESRD by Age and Race, Maryland 1991-2001

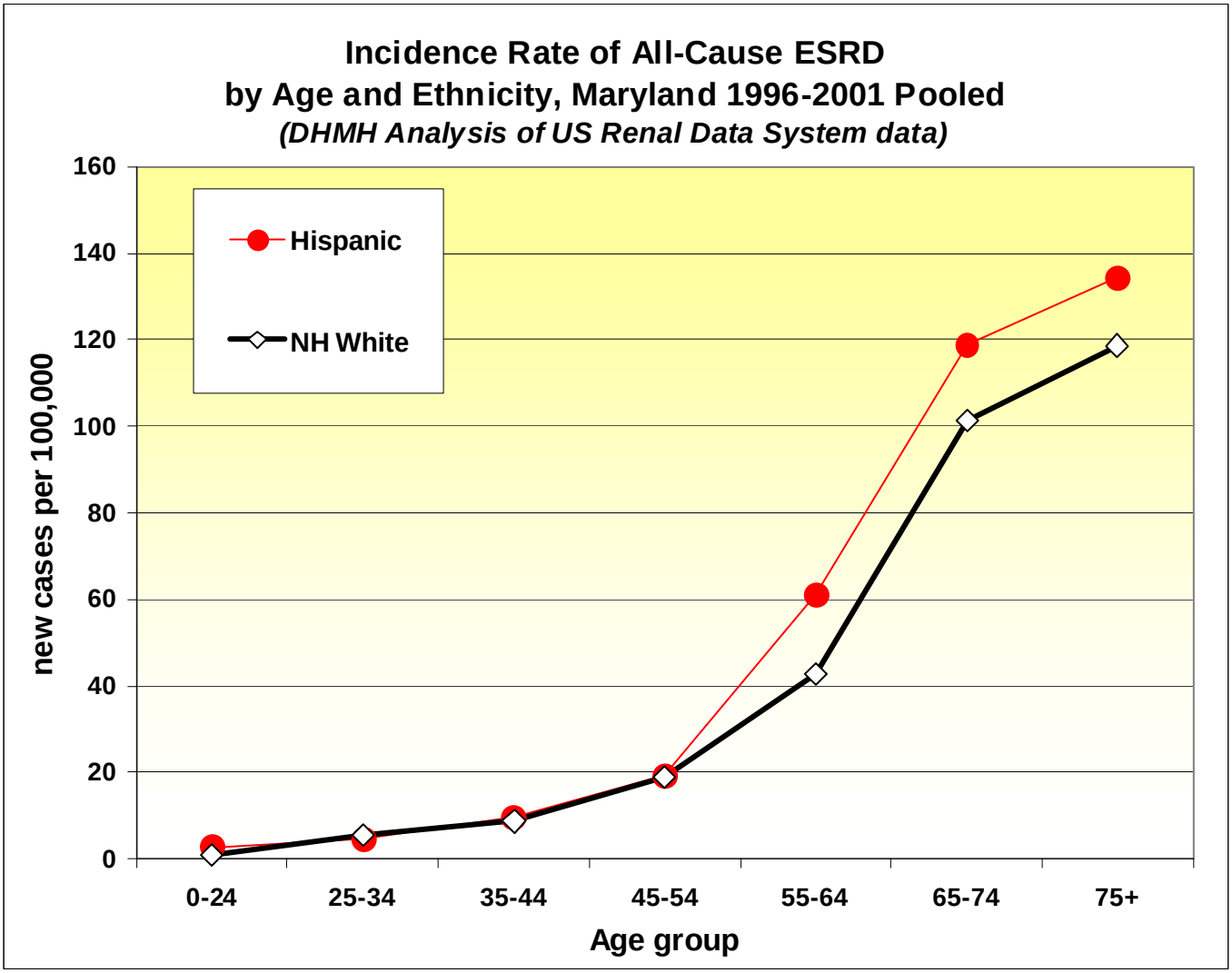


Source: DHMH Analysis of US Renal Data System data [5]

Since diabetes and hypertension cause about two-thirds of all ESRD, the higher levels of ESRD in some minority populations in Maryland suggest that they have higher rates of and/or poorer control of diabetes and hypertension than do Whites.

Based on pooled data from 1996 through 2001, the rates of new cases of End-Stage Renal Disease (kidney disease, referred to as ESRD) in Maryland have been about 20% to 30% higher for Hispanics than for Non-Hispanic Whites in the age groups older than 54 years of age [5]. (Hispanic ethnicity was not collected prior to 1996)

Figure 20. Incidence of All-cause ESRD by Age and Ethnicity, Maryland 1991-2001



Source: DHMH Analysis of US Renal Data System data [5]

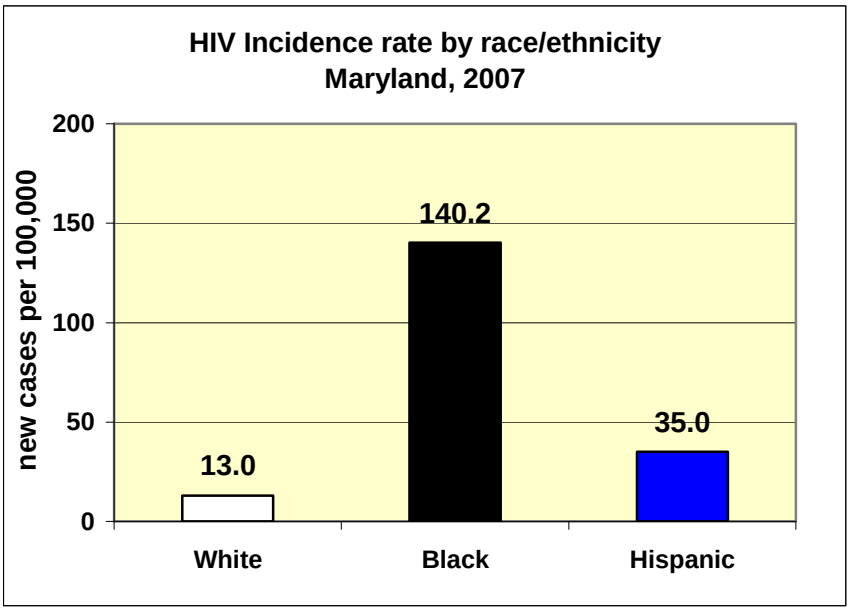
Disparity in HIV and AIDS New Case (Incidence) Rates

Compared to Whites, in 2007 incidence rates for HIV infection were

About 11 times higher for African Americans

About 2.7 times higher for Hispanics [9]

Figure 21. HIV Incidence Rate by Race and Ethnicity, Maryland 2007



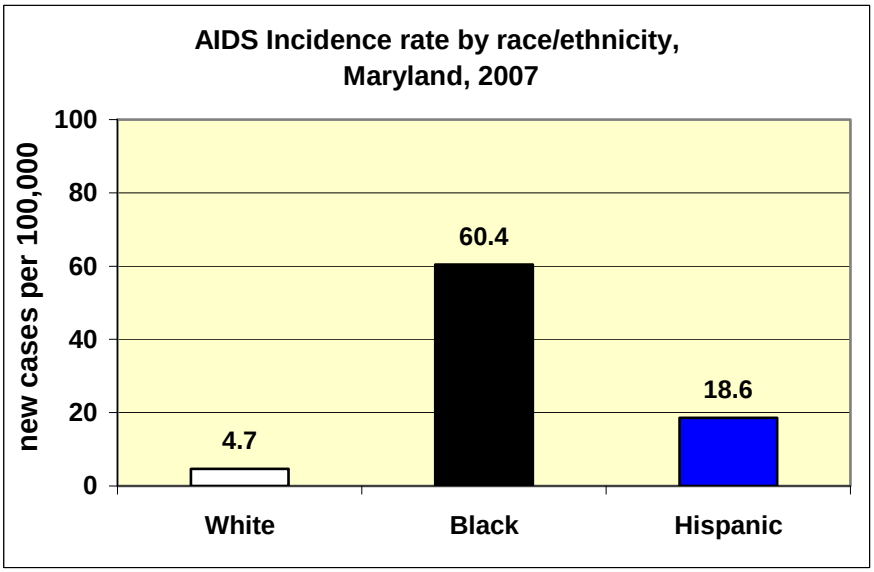
Source: ***Maryland HIV/AIDS Epidemiological Profile Fourth Quarter 2008*** **[9]**

Compared to Whites, in 2007 incidence rates for AIDS were

About 13 times higher for African Americans

About 4 times higher for Hispanics [9]

Figure 22. AIDS Incidence Rate by Race and Ethnicity, Maryland 2007



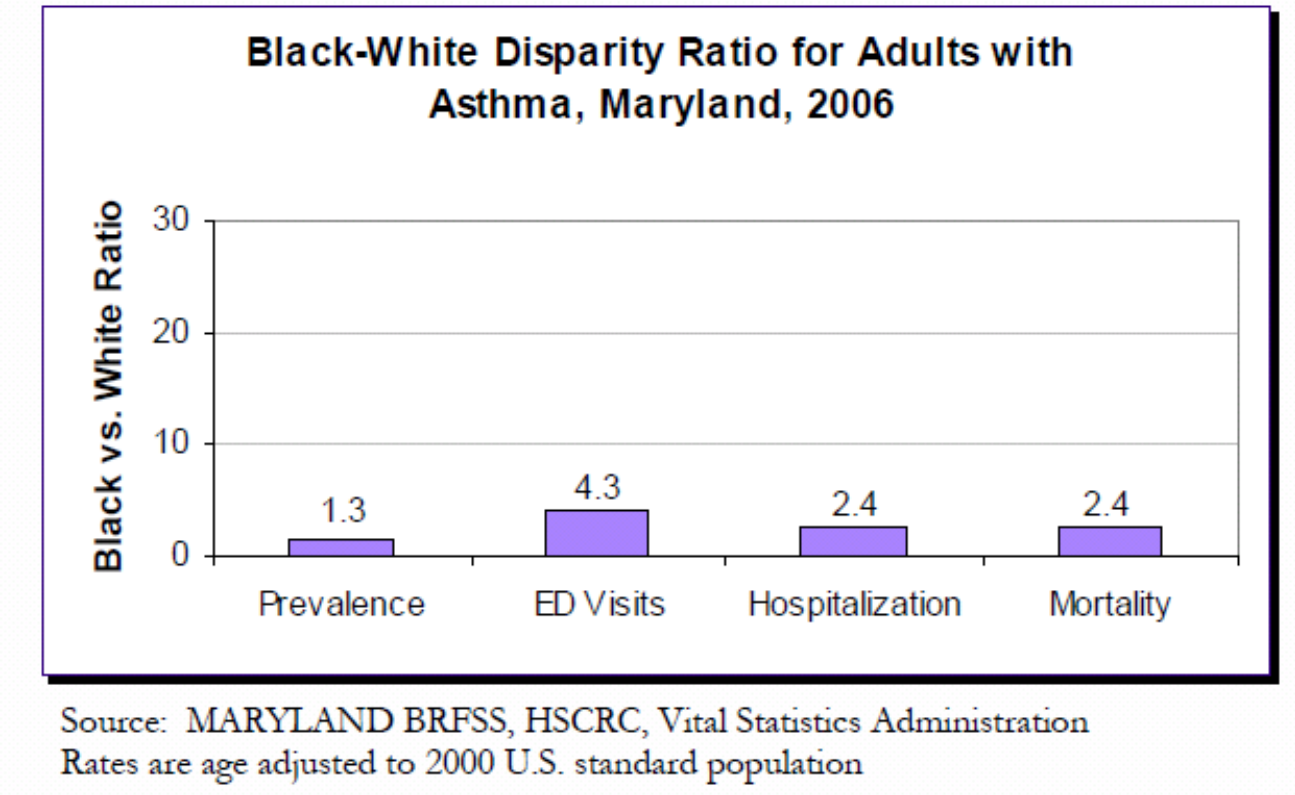
Source: ***Maryland HIV/AIDS Epidemiological Profile Fourth Quarter 2008*** **[9]**

Asthma Disparities

In Figure 20 below, from the DHMH report Asthma in Maryland, 2007 [10], the disparity between Black or African American and White asthma indicators in 2006, expressed as a ratio, is shown for asthma prevalence, asthma emergency department visits, asthma hospitalizations, and asthma deaths for adults.

While Black or African American adult asthma prevalence was 1.3 times higher, their Emergency Department visit rate was 4.3 times higher, and both admission rates and mortality rates were 2.4 times higher [10] . This indicates that the vast majority of Black or African American excess asthma morbidity and mortality is due not to differences in prevalence, but to differences in outcomes among persons with asthma.

Figure 23. Black vs. White Disparity Ratios for Adults with Asthma, Maryland 2006



Source: This figure is Figure 8-5 from the DHMH report *Asthma in Maryland 2007* [10]

Disparities in Health Care Access and Utilization

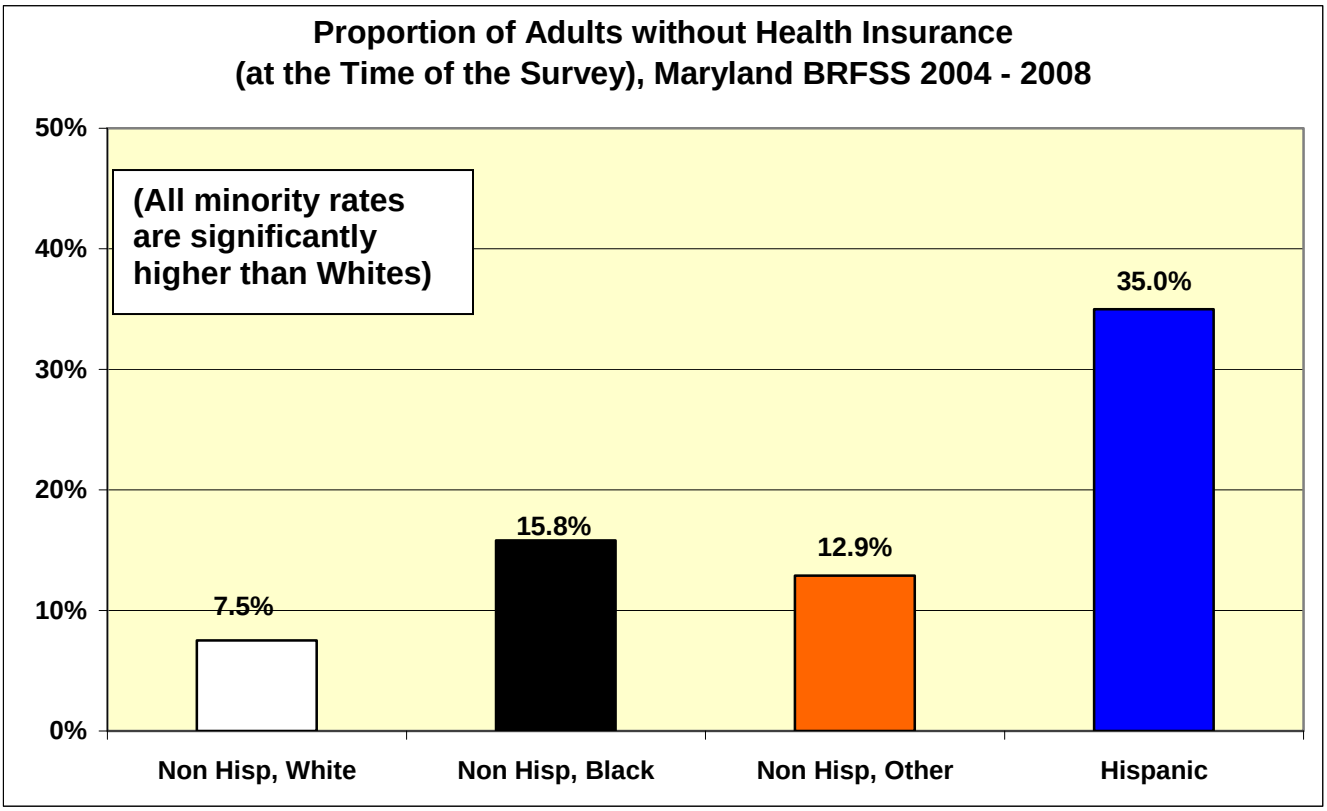
Lack of Health Insurance

Combining data from the 2004 through 2008 BRFSS, Maryland adults of all racial and ethnic minority groups were more likely to be without health insurance (at the time of the survey) than were Non-Hispanic White adults [6].

For the period 2004 to 2008, compared to Non-Hispanic Whites, the proportion of Maryland adults reporting no health insurance at the time of the survey was

- Over 2 times higher for Non-Hispanic Blacks or African Americans,
- About 4.7 times higher for Hispanic/Latinos,
- About 1.7 times higher for other minorities combined (Asian and Pacific Islander predominantly, also including American Indian, and "other" race) [6].

Figure 24. Proportion of Adults without Health Insurance, by Race and Ethnicity, Maryland 2004-2008



Source: Maryland BRFSS Data 2004 to 2008 [6]

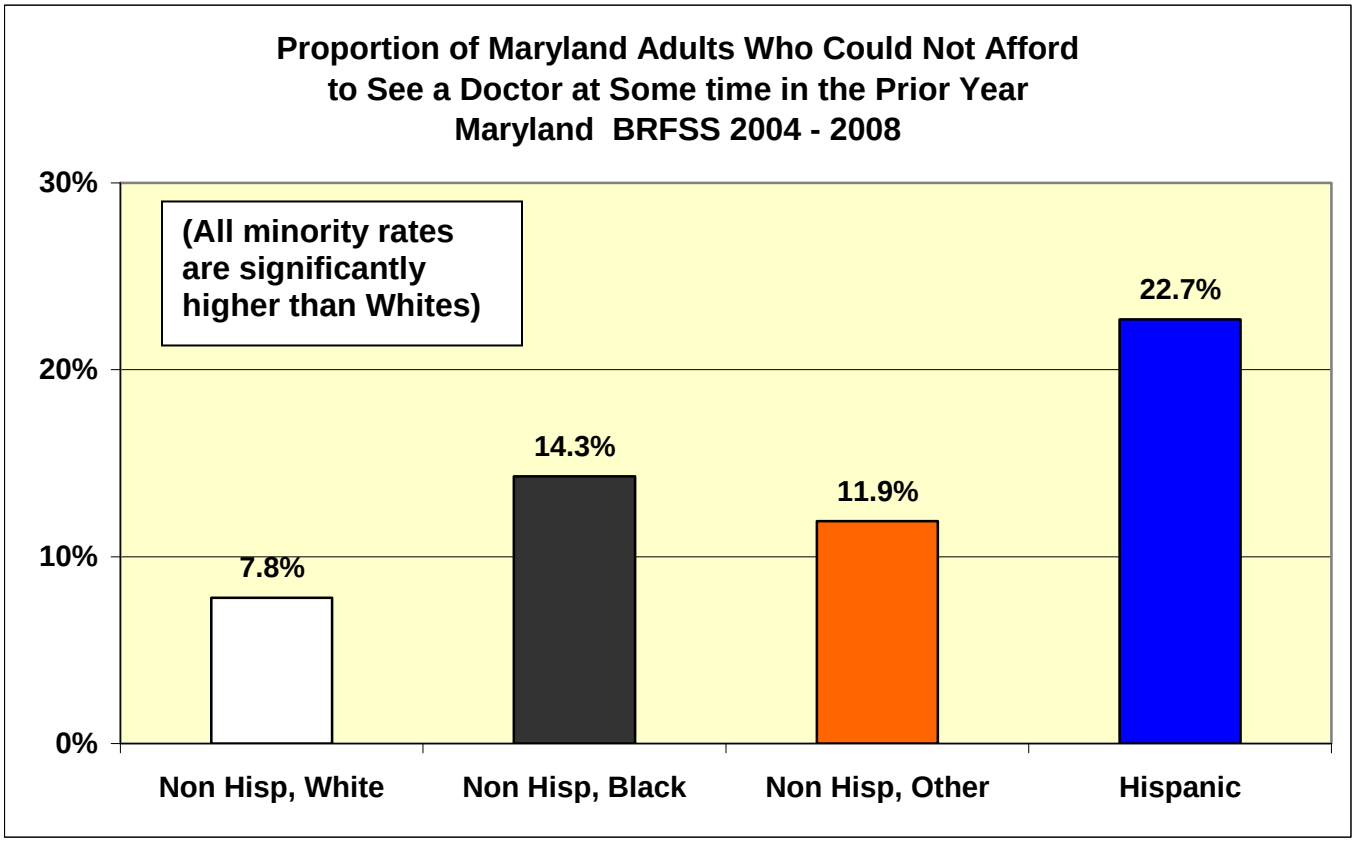
Inability to Afford Care

Combining data from the 2004 to 2008 BRFSS, Maryland adults of all racial and ethnic minority groups were more likely to be unable to afford to see a doctor (at some time in the prior year) than were Non-Hispanic White adults [6].

For the period 2004 to 2008, compared to Non-Hispanic Whites, the proportion of Maryland adults reporting an instance of being unable to afford care in the prior year was

- About 1.8 times higher for Non-Hispanic Blacks or African Americans,
- About 2.9 times higher for Hispanic/Latinos,
- About 1.5 times higher for other minorities combined (Asian and Pacific Islander predominantly, also including American Indian, and "other" race) [6].

Figure 25. Proportion of Adults Unable to Afford to See a Doctor, by Race and Ethnicity, Maryland 2004-2008



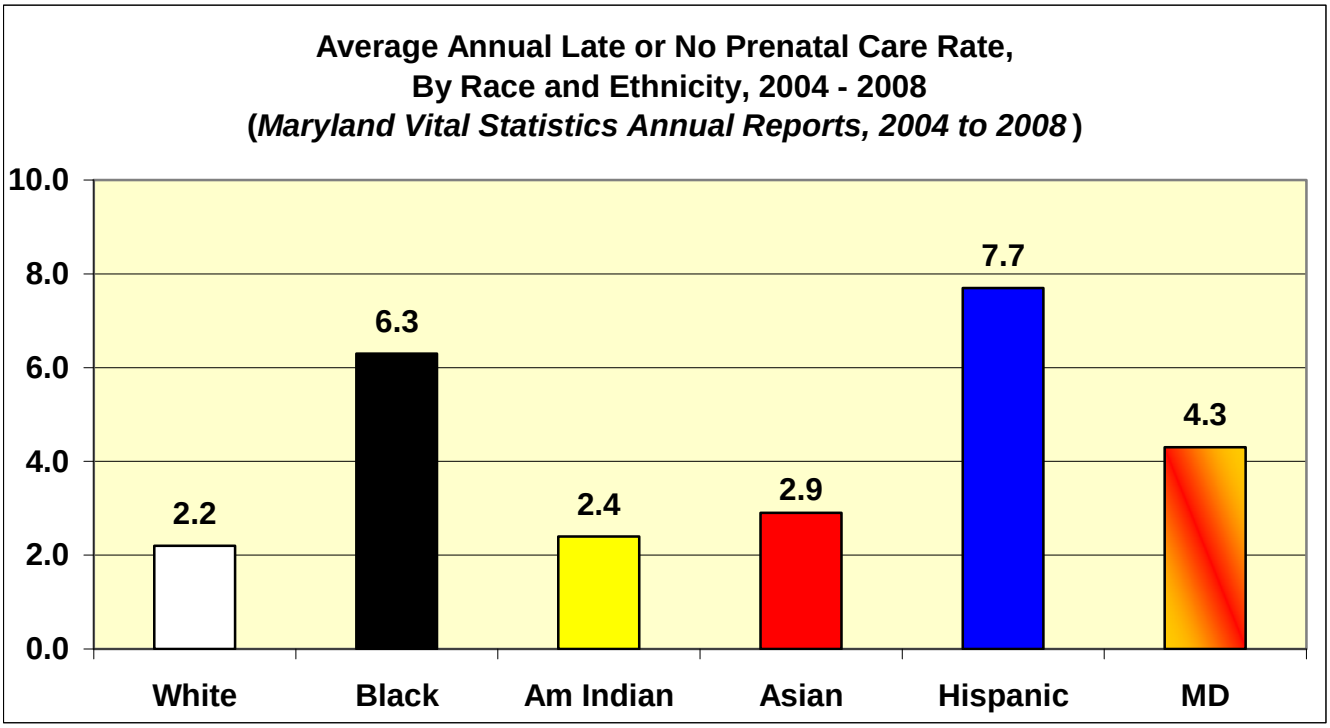
Source: Maryland BRFSS Data 2004 to 2008 [6]

Utilization of Pre-Natal Care

For the period 2004 to 2008, compared to pregnant white women, the percent of pregnant minority women receiving late or no prenatal care was:

- Almost 3 times higher for African American women,
- About 3.5 times higher for Hispanic women,
- About 1.3 times higher for Asian/Pacific Islander women, and
- About 1.1 times higher for American Indian women [4]

Figure 26. Average Annual Rate of Late or No Prenatal Care, by Race and Ethnicity, Maryland 2004-2008



Source: Maryland Vital Statistics Annual Reports 2004 to 2008 [4]

Utilization of Mental Health Services

Maryland's Behavioral Risk Factor Surveillance System (BRFSS) data demonstrates an underutilization of mental health services by minority populations. In each of the three major age groups, Non-Hispanic Whites are twice as likely as minority persons to report having ever seen a provider for a mental health problem [7] (see Table 4), despite equal or greater burden of mental health disorders in the minority populations [8] (see Table 5)

Table 4. Percent of Maryland Adults Reporting Seeing a Provider for Mental Health Problem, by Race and Ethnicity, 2001-2002

Percent Reporting Ever Seeing a Provider for a Mental Health Problem By Race and Ethnicity, Maryland BRFSS 2001 and 2002 Pooled

	NH White	NH Black	NH Other	NH Multiracial	Hispanic
Age 18-44	24.8%	**13.4%***	**11.5%***	DNS	**14.7%***
Age 45-64	24.7%	**12.2%***	**7.0%***	DNS	DNS
Age 65 +	13.3%	**5.5%***	DNS	DNS	DNS

*** minority group is statistically significantly different from NH Whites**

DNS = Data not sufficient to report a result

Source: Maryland BRFSS Data 2001 to 2002 [7]

Table 5. Percent of Maryland Adults Reporting 30 days of Poor Mental Health in the Previous Month, by Race and Ethnicity, 2003-2007

Percent Reporting 30 days of Poor Mental Health in Previous Month By Race and Ethnicity, Maryland BRFSS 2003 to 2007 Pooled

	NH White	NH Black	NH Other	NH Multiracial	Hispanic
Age 18-44	3.9%	**5.7%***	3.6%	6.2%	4.9%
Age 45-64	4.7%	5.6%	6.0%	**13.1%***	5.4%
Age 65 +	3.2%	3.8%	2.2%	DNS	3.5%

*** minority group is statistically significantly different from NH Whites**

DNS = Data not sufficient to report a result

Source: Maryland BRFSS Data 2003 to 2007 [8]

Cost of Disparities:

Cost of Excess Black or African American Hospital Admissions

Maryland Hospital Discharge Data permits an estimation of the hospital component cost of excess Black or African American hospital admissions. Estimates of this cost of disparities in 2004, for all admissions and for selected conditions, for Medicaid and for all payers, are shown below [11].

Table 6. Hospital Cost of Excess Black or African American Hospital Admissions, Maryland 2004

Cost of Disparities, Maryland 2004
Cost of Excess Black or African American Admissions
Hospital Component of Hospital Admissions
MHHD Analysis of HSCRC Hospital Discharge Data

Primary Diagnosis	Medicaid Excess Cost	All Payer Excess Cost
All Diagnoses	$59 Million	$481 Million
Heart Disease	$5 Million	$38 Million
Cancer	$1 Million	$7 Million
Diabetes	$3 Million	$26 Million
Asthma	$2 Million	$18 Million
Neonatal Intensive Care Admissions	$3 Million	$20 Million

Does not include Physician component of Hospital Admission
Does not include Emergency Room costs
Does not include Outpatient Care costs

MHHD – Office of Minority Health and Health Disparities, DHMH
HSCRC – Health Services Cost Review Commission

Source: MHHD analysis of HSCRC 2004 hospital discharge data [11]

Cost of Excess Black or African American Hospital Admissions for Ambulatory Care Sensitive Conditions (ACSCs).

The Maryland Health Care Commission (MHCC), in consultation with the Office of Minority Health and Health Disparities, commissioned an analysis of factors accounting for differences in rates of admission for ambulatory care sensitive conditions (ACSC) in the Maryland fee-for-service Medicare population in 2006 [13].

ACSCs are conditions where optimal outpatient care can prevent the need for most hospital admissions. The estimated costs of excess Black or African American admissions for Maryland Medicare fee-for-service enrollees age 65 and older, in 2006 are shown below [13].

Table 7. Hospital Cost of Excess Black or African American Medicare Hospital Admissions, Maryland 2006 (Source: Maryland Heath Care Commission)

Cost of Disparities, Maryland 2006
Cost of Excess Black or African American Admissions
Hospital Component of Hospital Admissions
MHCC analysis of Maryland Medicare data

Primary Diagnosis	Medicare Excess Cost
Congestive Heart Failure	$13 Million
Urinary Tract Infection	$2 Million
Dehydration	$2 Million
Diabetes	$5 Million
Asthma	$1 Million
Hypertension	$1 Million

Does not include Physician component of Hospital Admission
Does not include Emergency Room costs
Does not include Outpatient Care costs

Source: ***Differences in Hospitalizations for Ambulatory Care Sensitive Conditions Among Maryland Medicare Beneficiaries—2006*** **[13]**

Mortality Disparity Trends for Major Chronic Conditions

Heart disease:

Table 8. Change in Age-adjusted Heart Disease Mortality Disparity for Blacks or African Americans, Maryland 2000-2008

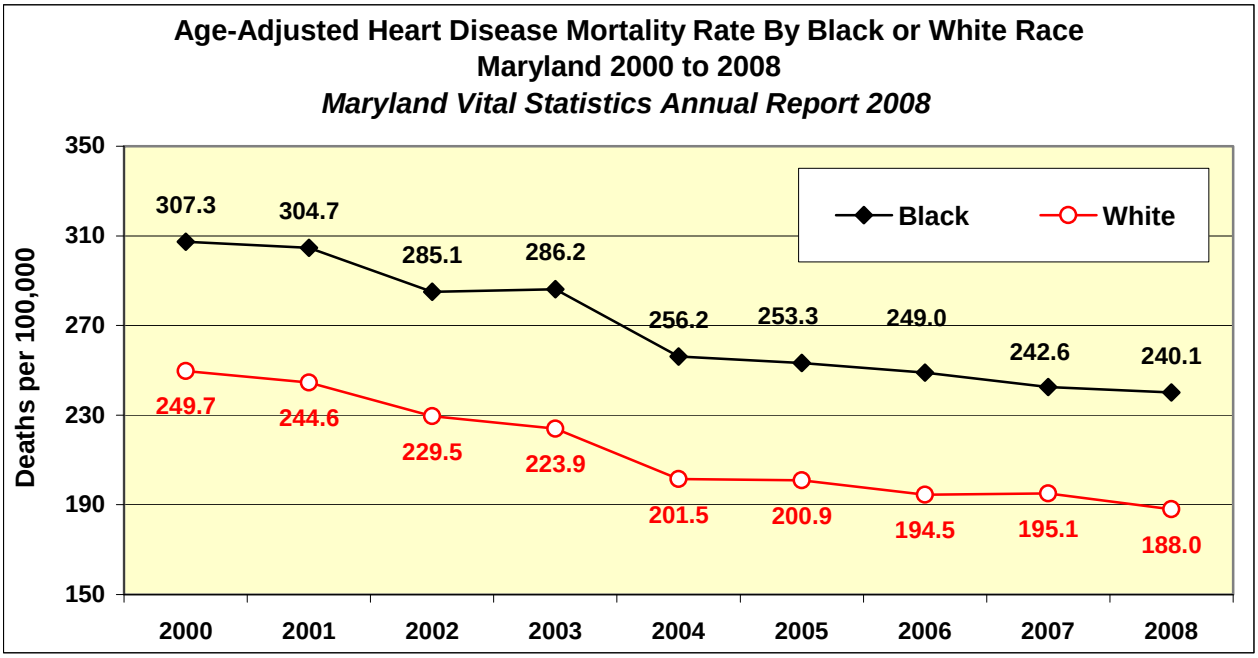
Heart Disease Mortality Rates, Rate Differences, and Percent Change, By Black or White Race, Maryland 2000 and 2008 (rates are age-adjusted rates per 100,000)

	2000	2008	Percent Change
Black Heart Disease Mortality	307.3	240.1	-21.9%
White Heart Disease Mortality	249.7	188.0	-24.7%
Mortality Difference	57.6	52.1	-9.5%

Source: ***Maryland Vital Statistics Annual Report 2008*** **[1]**

- Black or African American heart disease mortality was reduced by 21.9%
- White heart disease mortality was reduced by 24.7%
- The mortality difference between the groups was reduced by 9.5%

Figure 27. Age-adjusted Heart Disease Mortality Rate by Black or White Race, Maryland 2000 through 2008



Source: ***Maryland Vital Statistics Annual Report 2008*** **[1]**

Cancer

Table 9. Change in Age-adjusted Cancer Mortality Disparity for Blacks or African Americans, Maryland, 2000-2008

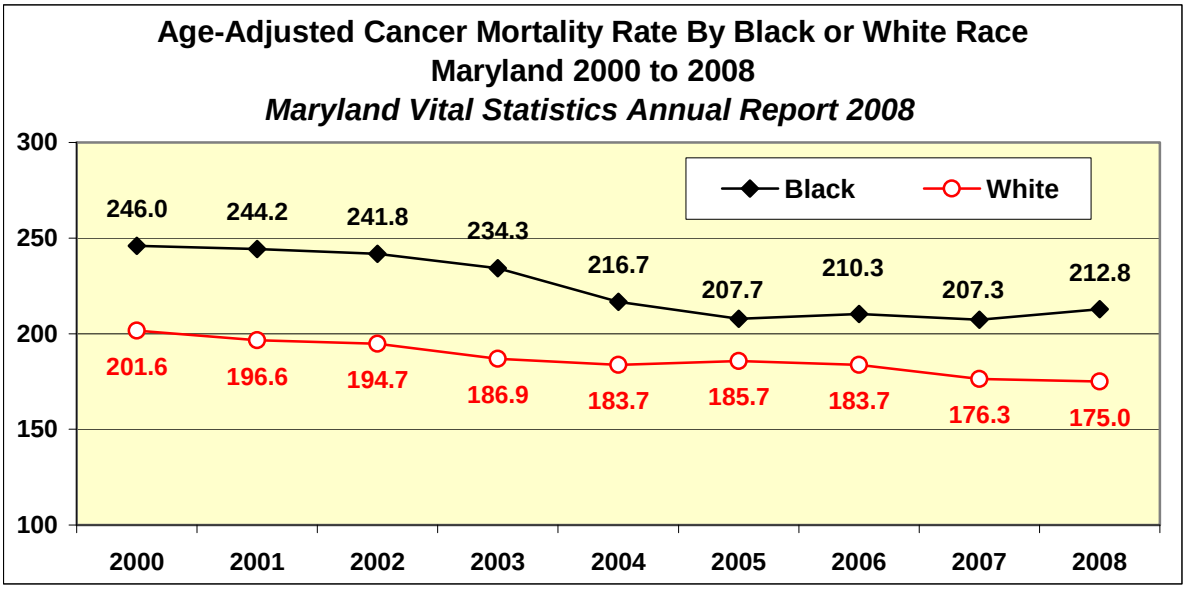
Cancer Mortality Rates, Rate Differences, and Percent Change, By White or Black Race, Maryland 2000 and 2008 (rates are age-adjusted rates per 100,000)

	2000	2008	Percent Change
Black Cancer Mortality	246.0	212.8	-13.5%
White Cancer Mortality	201.6	175.0	-13.2%
Mortality Difference	44.4	37.8	-14.9%

Source: ***Maryland Vital Statistics Annual Report 2008*** **[1]**

- Since 2000, Tobacco settlement funds have been used in cancer control
- Awareness and screening activities were undertaken, targeting minorities
- From 2000 to 2005 the cancer mortality disparity was reduced by 50%
-
- Since then, progress in Black cancer mortality has stalled or even regressed
- From 2000 to 2008, the cancer mortality disparity now shows only a 14.9% reduction.

Figure 28. Age-adjusted Cancer Mortality Rate by Black or White Race, Maryland 2000 through 2008



Source: **Maryland Vital Statistics Annual Report 2008** ***[1]***

Stroke:

Table 10. Change in Age-adjusted Stroke Mortality Disparity for Blacks or African Americans, Maryland 2000-2008

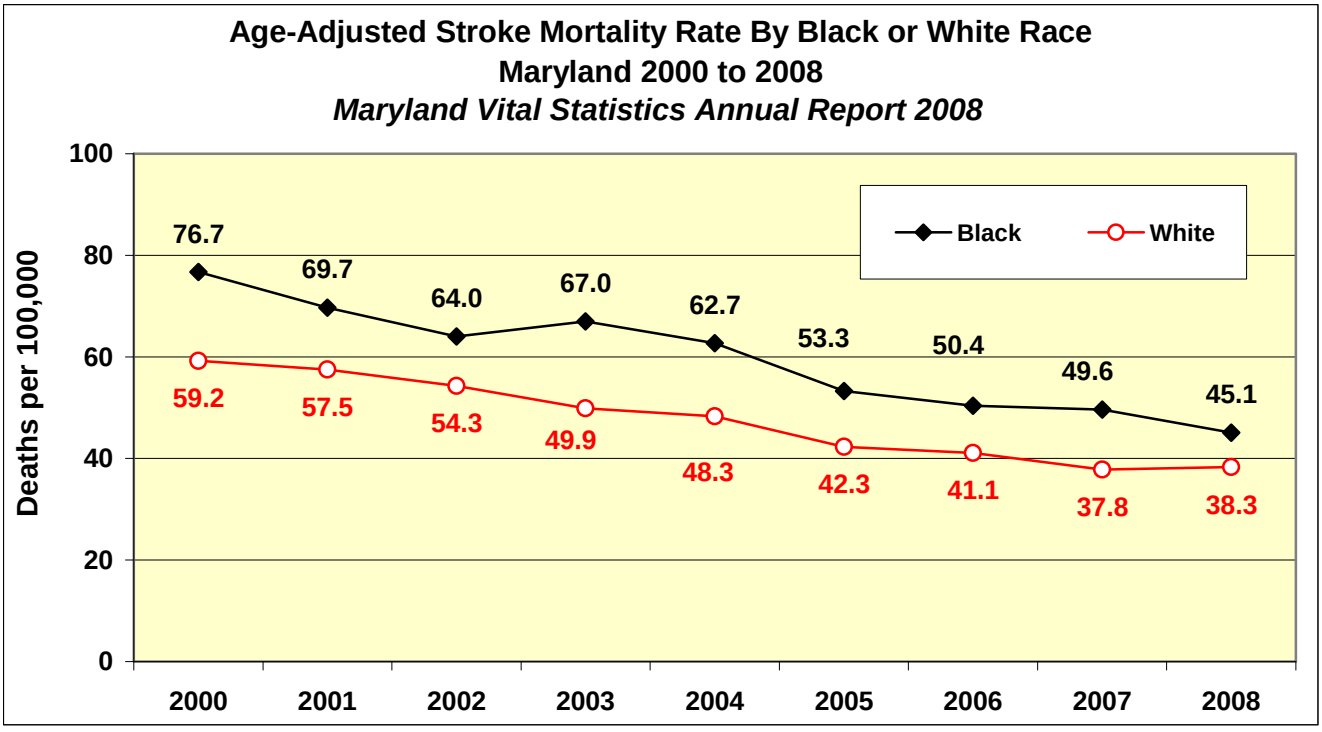
Stroke Mortality Rates, Rate Differences, and Percent Change, By Black or White Race, Maryland 2000 and 2008 (rates are age-adjusted rates per 100,000)

	2000	2008	Percent Change
Black Stroke Mortality	76.7	45.1	-41.2%
White Stroke Mortality	59.2	38.3	-35.3%
Mortality Difference	17.5	6.8	-61.1%

Source: **Maryland Vital Statistics Annual Report 2008** ***[1]***

- Black or African American stroke mortality was reduced by 41.2%
- White stroke mortality was reduced by 35.3%
- The mortality difference between the groups was reduced by 61.1%

Figure 29. Age-adjusted Stroke Mortality Rate by Black or White Race, Maryland 2000 through 2008



Source: **Maryland Vital Statistics Annual Report 2008** ***[1]***

Diabetes:

Table 11. Change in Age-adjusted Diabetes Mortality Disparity for Blacks or African Americans, Maryland 2000-2008

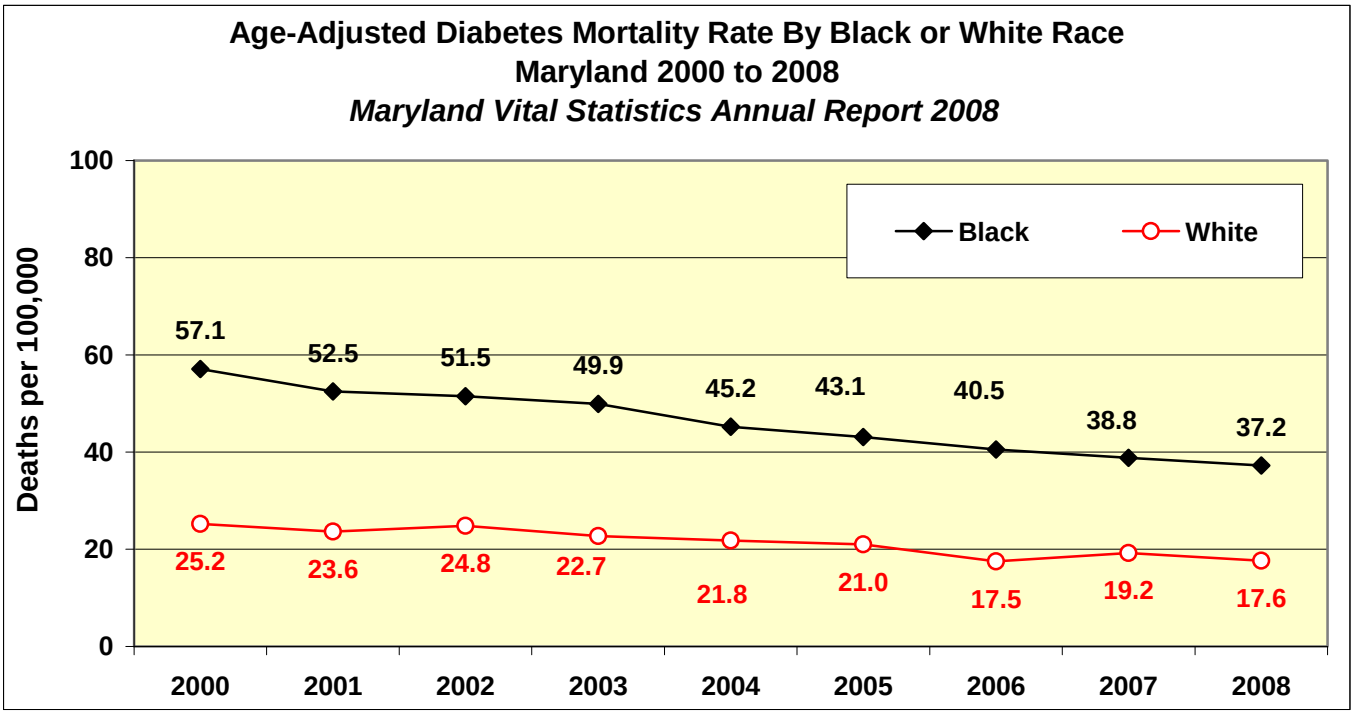
Diabetes Mortality Rates, Rate Differences, and Percent Change, By Black or White Race, Maryland 2000 and 2008 (rates are age-adjusted rates per 100,000)

	2000	2008	Percent Change
Black Diabetes Mortality	57.1	37.2	-34.9%
White Diabetes Mortality	25.2	17.6	-30.2%
Mortality Difference	31.9	19.6	-38.6%

Source: **Maryland Vital Statistics Annual Report 2008** ***[1]***

- Black or African American diabetes mortality was reduced by 34.9%
- White diabetes mortality was reduced by 30.2%
- The mortality difference between the groups was reduced by 38.6%

Figure 30. Age-adjusted Diabetes Mortality Rate by Black or White Race, Maryland 2000 through 2008



Source: **Maryland Vital Statistics Annual Report 2008** ***[1]***

HIV/AIDS:

Table 12. Change in Age-adjusted HIV / AIDS Mortality Disparity for Blacks or African Americans, Maryland 2000-2008

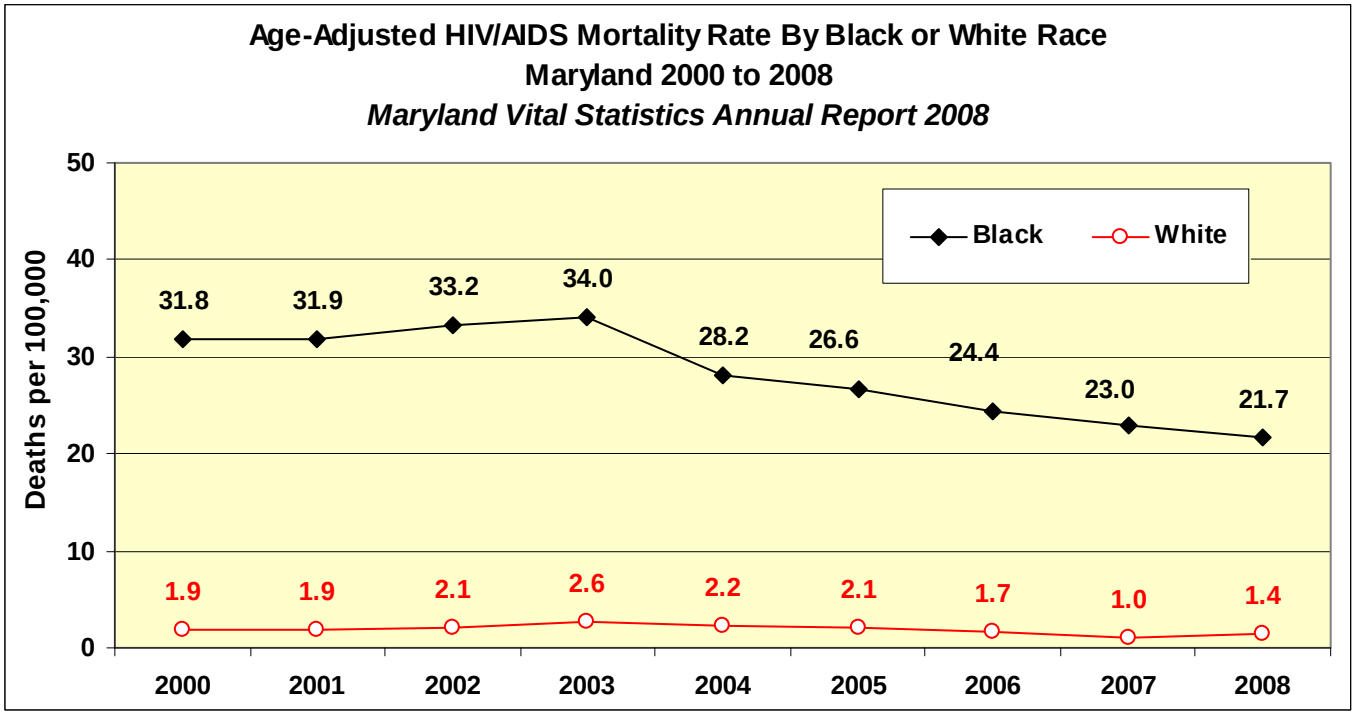
HIV/AIDS Mortality Rates, Rate Differences, and Percent Change, By Black or White Race, Maryland 2000 and 2008 (rates are age-adjusted rates per 100,000)

	2000	2008	Percent Change
Black HIV/AIDS Mortality	31.8	21.7	-31.8%
White HIV/AIDS Mortality	1.9	1.4	-26.3%
Mortality Difference	29.9	20.3	-32.1%

Source: **Maryland Vital Statistics Annual Report 2008** ***[1]***

- Black or African American HIV / AIDS mortality was reduced by 31.8%
- White HIV / AIDS mortality was reduced by 26.6%
- The mortality difference between the groups was reduced by 32.1%

Figure 31. Age-adjusted HIV / AIDS Mortality Rate by Black or White Race, Maryland 2000 through 2008



Source: **Maryland Vital Statistics Annual Report 2008** ***[1]***

All-causes of Death:

Table 13. Change in Age-adjusted All-cause Mortality Disparity for Blacks or African Americans, Maryland 2000-2008

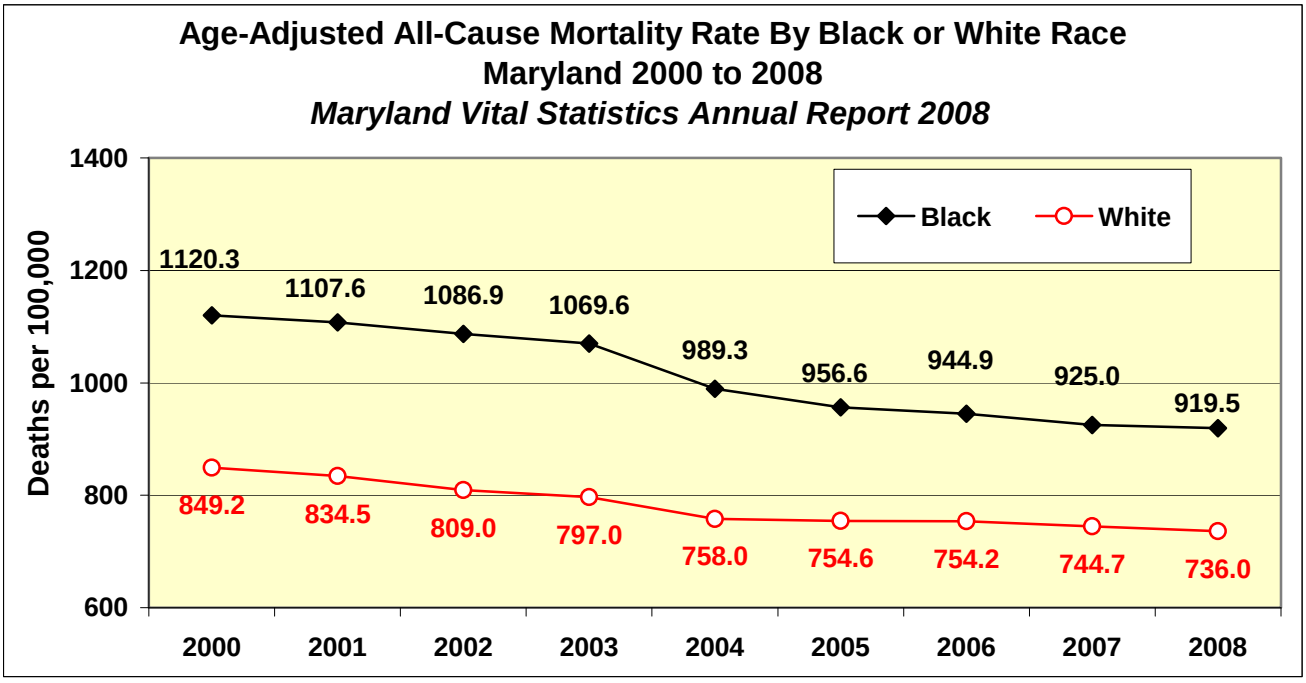
All-Cause Mortality Rates, Rate Differences, and Percent Change, By Black or White Race, Maryland 2000 and 2008 (rates are age-adjusted rates per 100,000)

	2000	2008	Percent Change
Black All-Cause Mortality	1120.3	919.5	-17.9%
White All-Cause Mortality	849.2	736.0	-13.3%
Mortality Difference	271.1	183.5	-32.3%

Source: **Maryland Vital Statistics Annual Report 2008** ***[1]***

- Black or African American all-cause mortality was reduced by 17.9%
- White all-cause mortality was reduced by 13.3%
- The mortality difference between the groups was reduced by 32.3%

Figure 32. Age-adjusted All-cause Mortality Rate by Black or White Race, Maryland 2000 through 2008



Source: **Maryland Vital Statistics Annual Report 2008** ***[1]***

Gender-Specific Health

Women's Health

This section on women's health highlights mortality rates for women for leading causes of death, and for cancers specific to women.

Currently, mortality data on minority groups is most reliable for Blacks or African Americans since they represent the largest proportion of minorities in Maryland. A variety of factors limit the ability to draw conclusions about the relative health of Maryland's other minority populations from their mortality data as it exists in our current data systems (see the detailed explanation of these factors on page 2). For these reasons, the comparisons in this section are limited to comparisons of mortality between Black or African American and White women in Maryland. The Office of Minority Health and Health Disparities is working to develop approaches to data collection and analysis that will allow us to improve data reporting for Maryland's smaller minority communities.

Leading Causes of Death for Women

Table 14 shows the Maryland mortality disparity between Black or African American and White women for the top 14 causes of death in 2008 [1]. The table includes ranking results for mortality rate ratios, excess mortality rates, and the statewide cause of death rank. Some key findings are:

- HIV/AIDS was the 13th statewide leading cause of death; however, it had the number one mortality rate ratio disparity for Blacks or African Americans compared to Whites. Black or African American women had 20.7 times the death rate of White women for HIV/AIDS.

- Black or African American women had higher mortality rates than White women for 9 of the top 14 causes of death, while White women had higher mortality rates than Black or African American women for 5 of the top 14 causes of death.

- Heart disease was the leading cause of death for all women, and for Black or African American women and White women when considered separately. Heart disease had the largest Black to White mortality rate disparity for women (when measured as the difference between the death rates), accounting for more than a quarter of that disparity for all causes.

- Cancer was a close second to heart disease as a cause of death for all women and for Black or African American and White women. Cancer had the second largest Black to White mortality rate disparity for women (when measured as the difference between the death rates), accounting for just under a quarter of that disparity in all causes of death.

- Heart disease and cancer together accounted for almost half of all mortality, and more than half of the Black to White mortality rate disparity (measured as the difference).

- Diabetes and HIV/AIDS were the third and fourth largest contributors to the Black to White mortality rate disparity for women (when measured as the difference between the death rates).

Table 14. Black or African American vs. White Women's Mortality Disparity for the Top 14 Causes of Death, Maryland 2008

Ratio Disparity Rank	Excess rate Disparity Rank	Statewide Cause of Death Rank*	Disease	Age-adjusted Mortality per 100,000 Black	White	Ratio	Age-adjusted Difference per 100,000
			All Causes	**756.8**	**623.8**	**1.21**	**133.0**
6	1	1	Heart Disease	193.8	148.4	1.31	45.4
7	2	2	Cancer	181.3	148.1	1.22	33.2
8	7	3	Stroke	41.8	38.0	1.10	3.8
		4	Chronic Lung Disease	20.0	38.3	0.52	-18.3
		5	Accidents	14.7	16.7	0.88	-2.0
3	3	6	Diabetes	32.2	15.9	2.03	16.3
9	9	7	Alzheimer's Disease	20.4	20.0	1.02	0.4
		8	Flu & Pneumonia	13.1	15.8	0.83	-2.7
5	5	9	Septicemia	25.3	13.3	1.90	12.0
4	6	10	Kidney Diseases	18.7	9.6	1.95	9.1
2	8	11	Homicide	5.6	2.2	2.55	3.4
		12	Suicide	0.8	3.9	0.21	-3.1
1	4	13	HIV / AIDS	14.5	0.7	20.71	13.8
		14	Chronic Liver Disease	3.4	4.5	0.76	-1.1

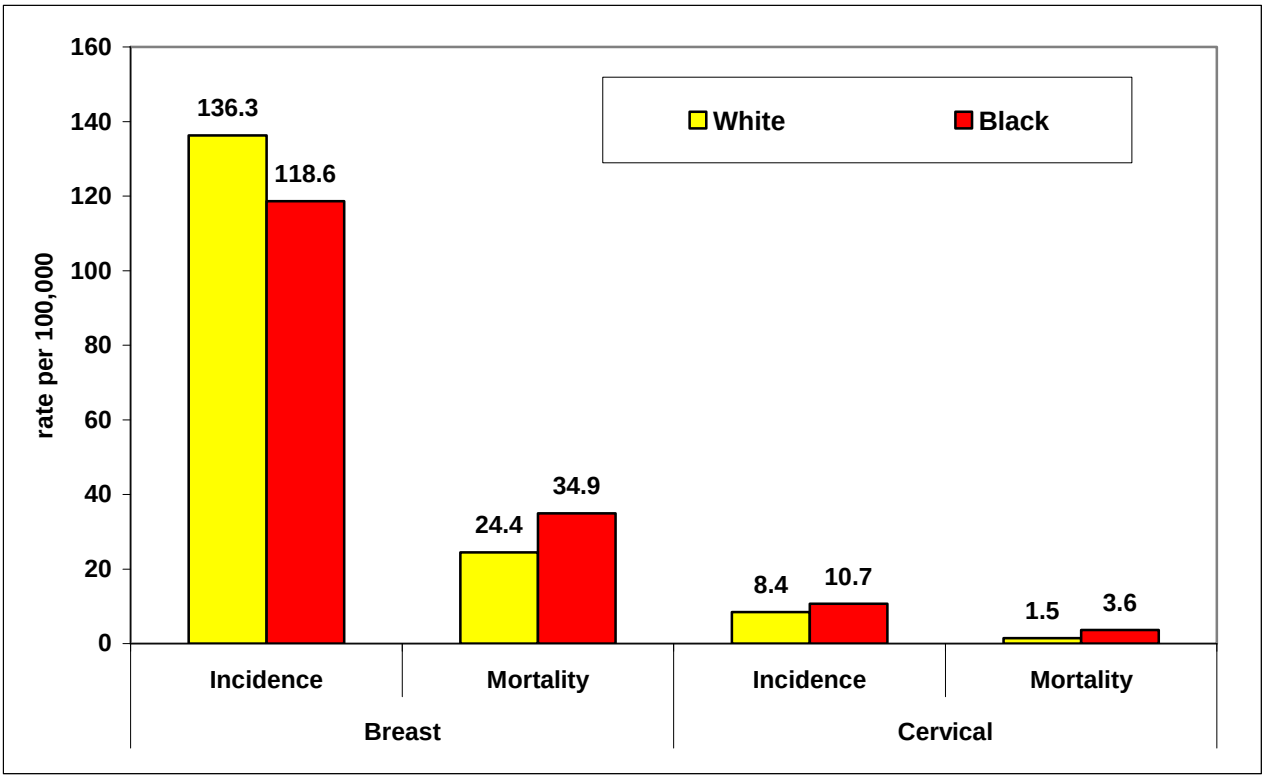
***** In this column is the ranking of the condition as a cause of death for all races and genders combined.

Source: Maryland Vital Statistics Annual Report 2008 [1]

Women's Cancer

Reproductive system cancers are examples of gender-specific health issues. Breast and cervical cancer represent two important cancers for women, for which screening, early detection, and prompt treatment can be lifesaving. Figure 33 shows that for cervical cancer, both the incidence (rate of new cases) and mortality are higher for Black or African American women than for White women in Maryland [14]. For breast cancer, despite lower incidence, Black or African American women suffer higher mortality than White women in Maryland. For both of these cancers, improving screening and treatment for Black or African American women is needed to close the disparity in cancer mortality.

Figure 33. Age-adjusted Incidence and Mortality Rates for Breast and Cervical Cancer, by White or Black Race, Maryland 2003.



Source: Cancer Report 2008 [14]

Men's Health

This section on men's health highlights mortality rates for men for leading causes of death, and for prostate cancer.

Currently, mortality data on minority groups is most reliable for Blacks or African Americans since they represent the largest proportion of minorities in Maryland. A variety of factors limit the ability to draw conclusions about the relative health of Maryland's other minority populations from their mortality data as it exists in our current data systems (see the detailed explanation of these factors on page 2). For these reasons, the comparisons in this section are limited to comparisons of mortality between Black or African American and White men in Maryland. The Office of Minority Health and Health Disparities is working to develop approaches to data collection and analysis that will allow us to improve data reporting for Maryland's smaller minority communities.

Leading Causes of Death for Men

Table 15 shows Maryland mortality disparities between Black or African American and White men for the top 14 causes of death in 2008 [1] . Rankings for the disparity ratio, excess disparity rate, and statewide cause of death are included. Some key findings are:

- HIV/AIDS was the 13th statewide leading cause of death; however, it had the number one mortality rate ratio disparity for Blacks or African Americans compared to Whites. Black or African American men had 11.6 times the death rate of White men.

- Black or African American men's mortality rates were higher than White men's rates for 12 of the top 14 causes of death, while White men's mortality rates were higher than Black or African American men's rates for 2 of the top 14 causes of death.

- Heart disease was the leading cause of death for all men, and for Black or African American men and White men when considered separately. Heart disease had the largest Black to White mortality rate disparity for men (when measured as the difference between the death rates), accounting for more than one fifth of that disparity for all causes.

- Cancer was a close second to heart disease as a cause of death for all men and for Black or African American and White men. Cancer had the second largest Black to White mortality rate disparity for men (when measured as the difference between the death rates), accounting for about one fifth of that disparity in all causes of death.

- Heart disease and cancer together accounted for about half of all mortality, and for about two fifths of the Black to White mortality rate disparity (when measured as the difference between the death rates).

- Homicide, HIV/AIDS and Diabetes were the third to fifth largest contributors to the Black to White mortality rate disparity for men (when measured as the difference between the death rates).

Table 15. Black or African American vs. White Men's Mortality Disparity for the Top 14 Causes of Death, Maryland 2008

Ratio Disparity Rank	Excess rate Disparity Rank	Statewide Cause of Death Rank*	Disease	Age-adjusted Mortality per 100,000 Black	White	Ratio	Age-adjusted Difference per 100,000
			All Causes	**1147.7**	**881.1**	**1.30**	**266.6**
7	1	1	Heart Disease	307.1	240.8	1.28	66.3
8	2	2	Cancer	266.4	214.4	1.24	52.0
6	8	3	Stroke	49.7	37.3	1.33	12.4
		4	Chronic Lung Disease	24.1	43.4	0.56	-19.3
9	9	5	Accidents	37.8	37.0	1.02	0.8
3	5	6	Diabetes	44.7	19.8	2.26	24.9
9	10	7	Alzheimer's Disease	16.1	15.8	1.02	0.3
11	11	8	Flu & Pneumonia	22.4	22.2	1.01	0.2
5	6	9	Septicemia	30.7	17.2	1.78	13.5
4	7	10	Kidney Diseases	26.1	13.3	1.96	12.8
2	3	11	Homicide	39.5	5.1	7.75	34.4
		12	Suicide	8.9	17.6	0.51	-8.7
1	4	10	HIV / AIDS	30.6	2.1	14.57	28.5
11	12	14	Chronic Liver Disease	10.2	10.1	1.01	0.1

*** In this column is the ranking of the condition as a cause of death for all races and genders combined.**

Source: Maryland Vital Statistics Annual Report 2008 [1]

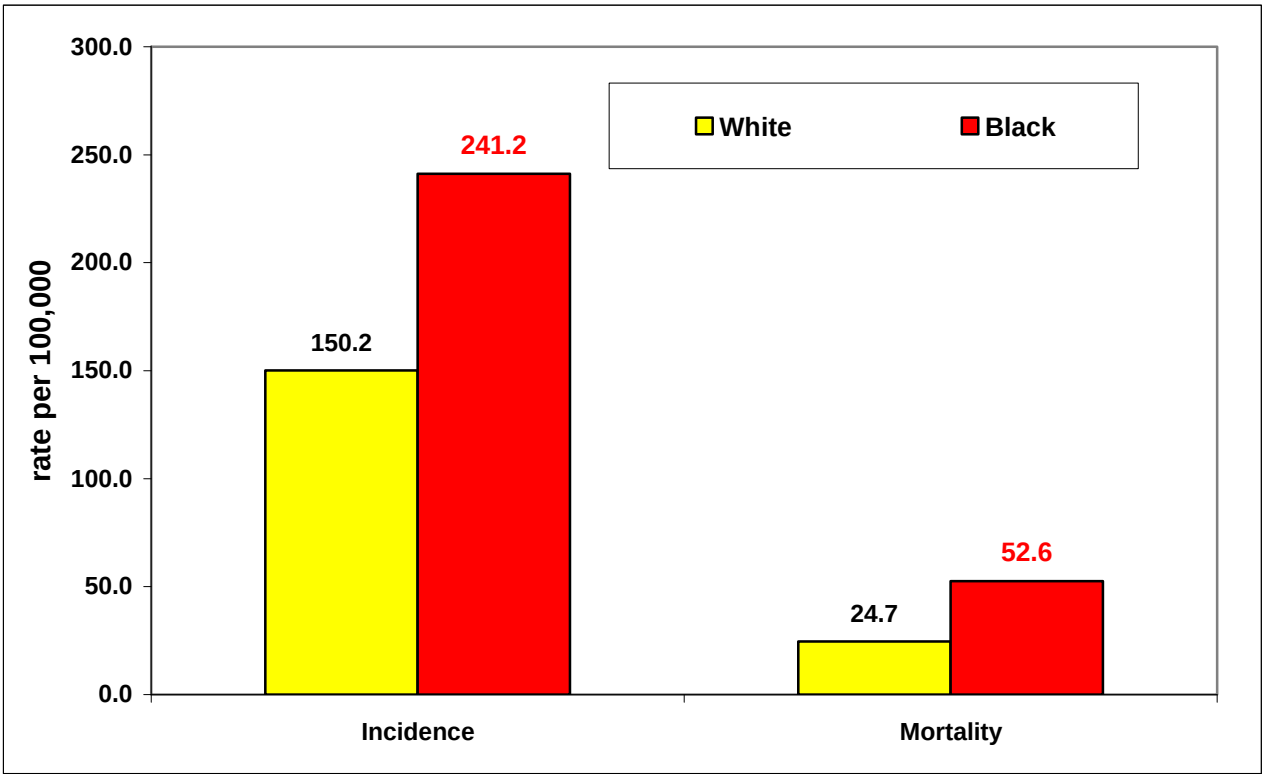
Men's Cancer

Prostate cancer is a gender-specific health issue for men. Because some prostate cancers grow very slowly, some older patients with prostate cancer will not have any meaningful impact on their lifespan or their health from the disease. Other patients may develop prostate cancer at a younger age and have a type that grows and spreads rapidly. Because of this variability in the disease, decisions about screening and treatment can be complex.

Figure 34 shows that in Maryland, both the incidence and mortality due to prostate cancer are higher for Black or African American men than for White men [14]. While the ratio of incidence is only 1.6 to one, the ratio of mortality is 2.1 to one. This suggests that prostate cancer in African American men is diagnosed at a more advanced stage, when long term survival is less likely.

Mortality rates for breast cancer in White women are similar to mortality rates for prostate cancer for White men. However, prostate cancer mortality in Black or African American men is about 1.5 times higher than breast cancer mortality in Black or African American women.

Figure 34. Age-adjusted Incidence and Mortality Rates for Prostate Cancer, by Black or White Race, Maryland 2003.



Source: Cancer Report 2008 [14]

Jurisdiction-Specific Data

Detailed Maryland Population Distribution by Jurisdiction for Each Racial and Ethnic Minority Group

American Indian or Alaska Native

In 2008, American Indians or Alaska Natives represented 0.42% of Maryland's overall population, and between 0.08% and 0.82% depending on jurisdiction, as reported in the Maryland Vital Statistics Annual Report, 2008 [1] (see comments on next page). These data indicate that most of this population lives in the Baltimore Metro and National Capital areas.

Table 16. American Indian or Alaska Native population of Maryland by Jurisdiction, 2008

	All races	American Indian	% of jurisdiction that is Am-Indian	% of Maryland Am-Indian Pop that lives in the Jurisdiction
MARYLAND	**5,633,597**	**23,468**	**0.42%**	**100.00%**
NORTHWEST AREA	**473,041**	**1,203**	**0.25%**	**5.13%**
GARRETT	29,698	24	0.08%	0.10%
ALLEGANY	72,238	138	0.19%	0.59%
WASHINGTON	145,384	313	0.22%	1.33%
FREDERICK	225,721	728	0.32%	3.10%
BALTIMORE METRO AREA	**2,620,026**	**9,627**	**0.37%**	**41.02%**
BALTIMORE CITY	636,919	2,708	0.43%	11.54%
BALTIMORE COUNTY	785,618	2,953	0.38%	12.58%
ANNE ARUNDEL	512,790	2,051	0.40%	8.74%
CARROLL	169,353	410	0.24%	1.75%
HOWARD	274,995	851	0.31%	3.63%
HARFORD	240,351	654	0.27%	2.79%
NATIONAL CAPITAL AREA	**1,771,532**	**9,496**	**0.54%**	**40.46%**
MONTGOMERY	950,680	4,823	0.51%	20.55%
PRINCE GEORGE'S	820,852	4,673	0.57%	19.91%
SOUTHERN AREA	**331,040**	**1,868**	**0.56%**	**7.96%**
CALVERT	88,698	314	0.35%	1.34%
CHARLES	140,764	1,154	0.82%	4.92%
ST MARY'S	101,578	400	0.39%	1.70%
EASTERN SHORE AREA	**437,958**	**1,274**	**0.29%**	**5.43%**
CECIL	99,926	350	0.35%	1.49%
KENT	20,151	37	0.18%	0.16%
QUEEN ANNE'S	47,091	102	0.22%	0.43%
CAROLINE	33,138	200	0.60%	0.85%
TALBOT	36,215	71	0.20%	0.30%
DORCHESTER	31,998	76	0.24%	0.32%
WICOMICO	94,046	230	0.24%	0.98%
SOMERSET	26,119	108	0.41%	0.46%
WORCESTER	49,274	100	0.20%	0.43%

Source: Maryland Vital Statistics Annual Report 2008 [1]

Underestimation of the American Indian or Alaska Native Population in some reports

The preceding table is based on the Maryland Vital Statistics Annual Report which uses the bridged-race estimation technique of the National Center for Health Statistics [15]. This method is also used for population denominators in mortality data from CDC Wonder [12]. This method distributes persons indicating more than one race into single racial groups, to create race estimates that are compatible with other data systems that do not allow more than one race as a response. Bridged-race estimates produce race estimates that add up to exactly 100% of the population.

For the American Indian or Alaska Native population in Maryland, the frequency of reporting more than one race is very high. This means that bridged-race estimation markedly **underestimates** the number of persons in Maryland who report some American Indian or Alaska Native racial heritage. The Census Bureau provides estimates of persons who report a race either as their only race, or in combination with other races, in a category called "(the specified race) alone or in combination".

Examining data from the 2000 Census [16] and from the 2005 American Community Survey [17], we can estimate the degree to which various racial groups in Maryland report multi-racial heritage. In these years, the percentage of Marylanders reporting a particular race "alone or in combination" who reported only that one race was 98% for Whites, 97% for Blacks or African Americans, and 88% to 90% for Asians or Pacific Islanders, and 39% for American Indians or Alaska Natives. This means that 61% of the American Indian or Alaska Native population gave a multi-racial response.

Further examining data from the 2000 Census [16] and from the 2005 American Community Survey [17], we can determine how closely the bridged-race estimates published in the Maryland Vital Statistics Annual Reports match the "alone or in combination" estimates furnished by the Census Bureau. In both years, for Maryland, the bridged-race estimates were within 3% to 4% of the "alone or in combination" estimates for Whites, Blacks or African Americans, and Asians or Pacific Islanders. For American Indians or Alaska Natives in Maryland, the bridged-race estimates represented 48% to 50% of their "alone or in combination" estimates.

Therefore, of the four racial groups commonly reported in Maryland data, only American Indians or Alaska Natives show a meaningful difference between their bridged-race estimates and their "alone or in combination" estimates. For this racial group, the population numbers in Table 16 above should be multiplied by a factor of two in order to approximate the number of persons in Maryland reporting American Indian or Alaska Native "alone or in combination". Thus, it can be estimated that in Maryland in 2008, there were about 47,000 persons who would consider themselves to have some American Indian or Alaska Native heritage.

Asian or Pacific Islander

In 2008, Asians or Pacific Islanders represented 5.43% of Maryland's overall population, and between 0.24% and 14.22% depending on jurisdiction, as reported in the Maryland Vital Statistics Annual Report, 2008 [1]. These data indicate that most of this population lives in the National Capital Area (where Montgomery County has nearly half of this population), with the Baltimore Metro Area second.

Table 17. Asian or Pacific Islander population of Maryland by Jurisdiction, 2008

	All races	Asian/PI	% of jurisdiction that is Asian/PI	% of Maryland Asian/PI Pop that lives in the Jurisdiction
MARYLAND	**5,633,597**	**305,847**	**5.43%**	**100.00%**
NORTHWEST AREA	**473,041**	**11,595**	**2.45%**	**3.79%**
GARRETT	29,698	72	0.24%	0.02%
ALLEGANY	72,238	520	0.72%	0.17%
WASHINGTON	145,384	2,221	1.53%	0.73%
FREDERICK	225,721	8,782	3.89%	2.87%
BALTIMORE METRO AREA	**2,620,026**	**110,494**	**4.22%**	**36.13%**
BALTIMORE CITY	636,919	14,115	2.22%	4.62%
BALTIMORE COUNTY	785,618	35,505	4.52%	11.61%
ANNE ARUNDEL	512,790	18,029	3.52%	5.89%
CARROLL	169,353	2,987	1.76%	0.98%
HOWARD	274,995	34,105	12.40%	11.15%
HARFORD	240,351	5,753	2.39%	1.88%
NATIONAL CAPITAL AREA	**1,771,532**	**170,644**	**9.63%**	**55.79%**
MONTGOMERY	950,680	135,175	14.22%	44.20%
PRINCE GEORGE'S	820,852	35,469	4.32%	11.60%
SOUTHERN AREA	**331,040**	**7,864**	**2.38%**	**2.57%**
CALVERT	88,698	1,379	1.55%	0.45%
CHARLES	140,764	3,997	2.84%	1.31%
ST MARY'S	101,578	2,488	2.45%	0.81%
EASTERN SHORE AREA	**437,958**	**5,250**	**1.20%**	**1.72%**
CECIL	99,926	1,121	1.12%	0.37%
KENT	20,151	166	0.82%	0.05%
QUEEN ANNE'S	47,091	553	1.17%	0.18%
CAROLINE	33,138	263	0.79%	0.09%
TALBOT	36,215	369	1.02%	0.12%
DORCHESTER	31,998	320	1.00%	0.10%
WICOMICO	94,046	1,729	1.84%	0.57%
SOMERSET	26,119	243	0.93%	0.08%
WORCESTER	49,274	486	0.99%	0.16%

Source: Maryland Vital Statistics Annual Report 2008 [1]

Hispanic or Latino

In 2008, Hispanics or Latinos represented 6.67% of Maryland's overall population, and between 0.69% and 14.80% depending on jurisdiction, as reported in the Maryland Vital Statistics Annual Report, 2008 [1]. These data indicate that most of this population lives in the National Capital Area (where Montgomery County has over a third and Prince George's County has over a quarter of this population), with the Baltimore Metro Area second.

Table 18. Hispanic or Latino population of Maryland by Jurisdiction, 2008

	All races	Hispanic	% of jurisdiction that is Hispanic	% of Maryland Hispanic Pop that lives in the Jurisdiction
MARYLAND	**5,633,597**	**375,830**	**6.67%**	**100.00%**
NORTHWEST AREA	**473,041**	**18,541**	**3.92%**	**4.93%**
GARRETT	29,698	205	0.69%	0.05%
ALLEGANY	72,238	770	1.07%	0.20%
WASHINGTON	145,384	3,925	2.70%	1.04%
FREDERICK	225,721	13,641	6.04%	3.63%
BALTIMORE METRO AREA	**2,620,026**	**88,018**	**3.36%**	**23.42%**
BALTIMORE CITY	636,919	17,014	2.67%	4.53%
BALTIMORE COUNTY	785,618	24,528	3.12%	6.53%
ANNE ARUNDEL	512,790	23,037	4.49%	6.13%
CARROLL	169,353	3,194	1.89%	0.85%
HOWARD	274,995	13,659	4.97%	3.63%
HARFORD	240,351	6,586	2.74%	1.75%
NATIONAL CAPITAL AREA	**1,771,352**	**245,982**	**13.89%**	**65.45%**
MONTGOMERY	950,680	140,657	14.80%	37.43%
PRINCE GEORGE'S	820,852	105,325	12.83%	28.02%
SOUTHERN AREA	**331,040**	**10,691**	**3.23%**	**2.84%**
CALVERT	88,698	2,237	2.52%	0.60%
CHARLES	140,764	5,484	3.90%	1.46%
ST MARY'S	101,578	2,970	2.92%	0.79%
EASTERN SHORE AREA	**437,958**	**12,598**	**2.88%**	**3.35%**
CECIL	99,926	2,363	2.36%	0.63%
KENT	20,151	723	3.59%	0.19%
QUEEN ANNE'S	47,091	976	2.07%	0.26%
CAROLINE	33,138	1,608	4.85%	0.43%
TALBOT	36,215	1,155	3.19%	0.31%
DORCHESTER	31,998	712	2.23%	0.19%
WICOMICO	94,046	3,244	3.45%	0.86%
SOMERSET	26,119	625	2.39%	0.17%
WORCESTER	49,274	1,198	2.43%	0.32%

Source: Maryland Vital Statistics Annual Report 2008 [1]

Black or African American

In 2008, Blacks or African Americans represented 30.04% of Maryland's overall population, and between 0.96% and 66.66% depending on jurisdiction, as reported in the Maryland Vital Statistics Annual Report, 2008 [1]. These data indicate that most of this population lives in the Baltimore Metro Area (where Baltimore City has almost a quarter of this population), with the National Capital Area second (where Prince George's County has almost a third of this population).

Table 19. Black or African American population of Maryland by Jurisdiction, 2008

	All races	African-Am	% of jurisdiction that is African-Am	% of Maryland African-Am Pop that lives in the Jurisdiction
MARYLAND	**5,633,597**	**1,692,495**	**30.04%**	**100.00%**
NORTHWEST AREA	**473,041**	**41,266**	**8.72%**	**2.44%**
GARRETT	29,698	286	0.96%	0.02%
ALLEGANY	72,238	4,887	6.77%	0.29%
WASHINGTON	145,384	14,764	10.16%	0.87%
FREDERICK	225,721	21,329	9.45%	1.26%
BALTIMORE METRO AREA	**2,620,026**	**779,699**	**29.76%**	**46.07%**
BALTIMORE CITY	636,919	409,800	64.34%	24.21%
BALTIMORE COUNTY	785,618	200,875	25.57%	11.87%
ANNE ARUNDEL	512,790	81,602	15.91%	4.82%
CARROLL	169,353	7,068	4.17%	0.42%
HOWARD	274,995	49,624	18.05%	2.93%
HARFORD	240,351	30,730	12.79%	1.82%
NATIONAL CAPITAL AREA	**1,771,532**	**713,104**	**40.25%**	**42.13%**
MONTGOMERY	950,680	165,899	17.45%	9.80%
PRINCE GEORGE'S	820,852	547,205	66.66%	32.33%
SOUTHERN AREA	**331,040**	**85,016**	**25.68%**	**5.02%**
CALVERT	88,698	13,115	14.79%	0.77%
CHARLES	140,764	56,224	39.94%	3.32%
ST MARY'S	101,578	15,677	15.43%	0.93%
EASTERN SHORE AREA	**437,958**	**73,410**	**16.76%**	**4.34%**
CECIL	99,926	6,111	6.12%	0.36%
KENT	20,151	3,245	16.10%	0.19%
QUEEN ANNE'S	47,091	3,972	8.43%	0.23%
CAROLINE	33,138	4,844	14.62%	0.29%
TALBOT	36,215	5,118	14.13%	0.30%
DORCHESTER	31,998	8,934	27.92%	0.53%
WICOMICO	94,046	22,880	24.33%	1.35%
SOMERSET	26,119	11,009	42.15%	0.65%
WORCESTER	49,274	7,297	14.81%	0.43%

Source: Maryland Vital Statistics Annual Report 2008 [1]

Mortality Data by Jurisdiction

Currently, mortality data on minority groups is most reliable for Blacks or African Americans since they represent the largest proportion of minorities in Maryland. A variety of factors limit the ability to draw conclusions about the relative health of Maryland's other minority populations from their mortality data as it exists in our current data systems (see the detailed explanation of these factors on page 2). For these reasons, the comparisons in this section are limited to comparisons of mortality between Blacks or African Americans and Whites in Maryland. The Office of Minority Health and Health Disparities is working to develop approaches to data collection and analysis that will allow us to improve data reporting for Maryland's smaller minority communities.

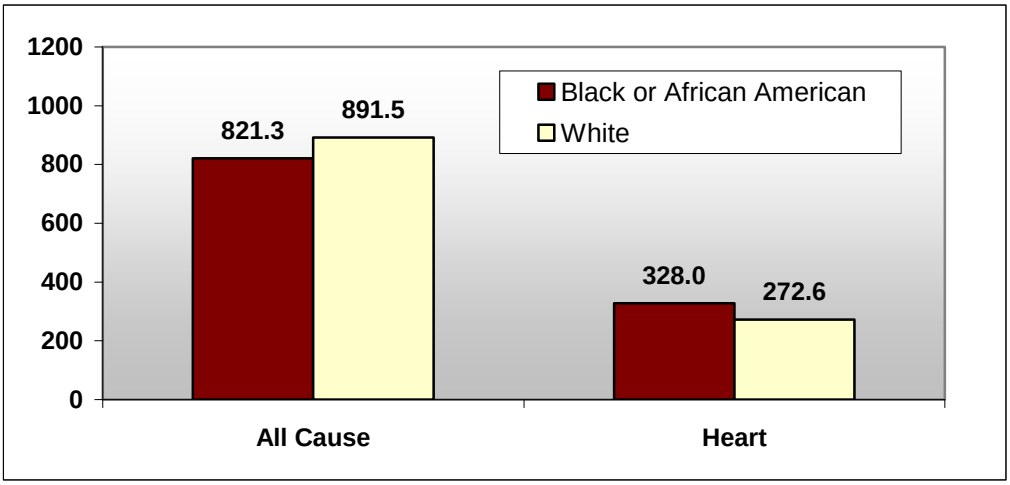
The following section presents age-adjusted mortality rates for the top eight causes of death for Blacks or African Americans and Whites in each jurisdiction. In some jurisdictions, all eight causes of death were not included due to insufficient data. Furthermore, only data for Blacks or African Americans and Whites are presented due to insufficient data on other racial and ethnic groups.

Allegany County

Figure 35 shows age-adjusted mortality rates for Allegany County combining data from 2002 to 2006 [12]

- Blacks or African Americans in Allegany County had a 1.2 times higher mortality rate than Whites for diseases of the heart.

Figure 35. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Allegany County, Maryland 2002-2006



Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12].
Note: Additional causes of death were not included due to insufficient data

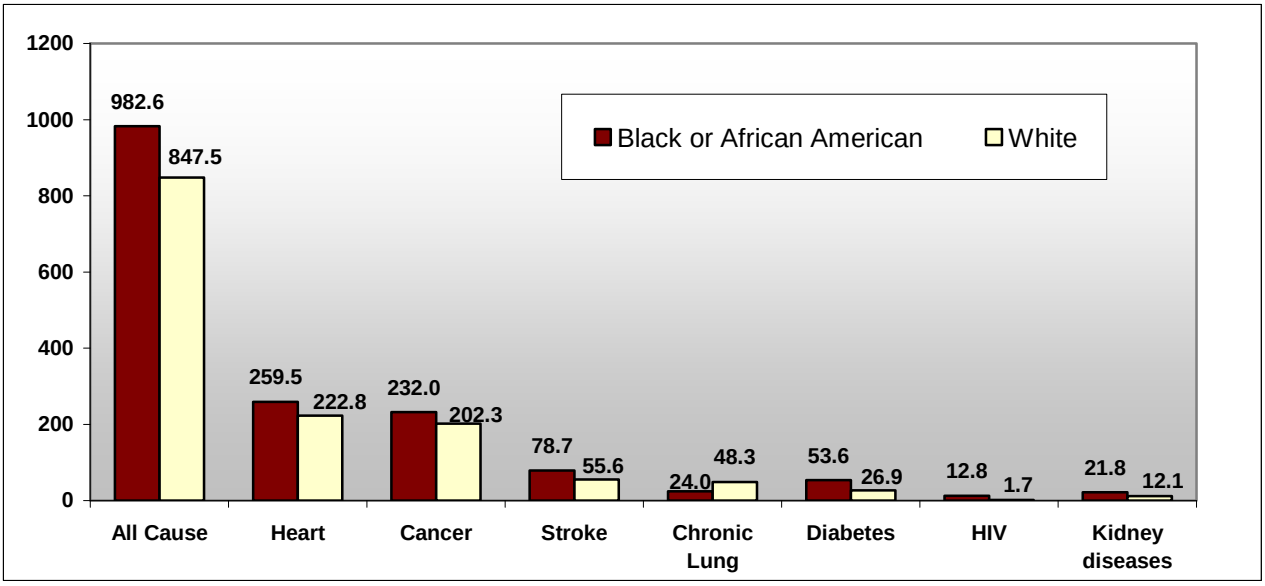
Anne Arundel County

Figure 36 shows age-adjusted mortality rates for Anne Arundel County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Anne Arundel County had higher mortality rates than Whites for six of seven causes of death and for all-cause mortality (the exception being chronic lung disease).

- The mortality ratio disparities were greatest for HIV and diabetes, where Blacks or African Americans had 7.5 times the HIV death rate and 2.0 times the diabetes death rate compared to Whites.

Figure 36. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Anne Arundel County, Maryland 2002-2006



Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12].

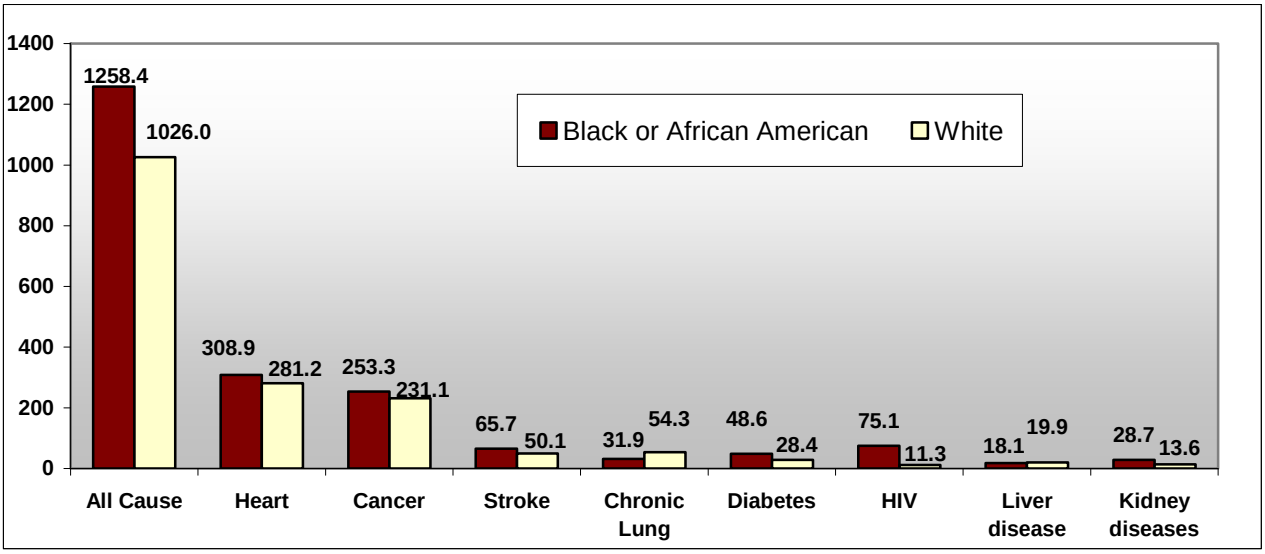
Baltimore City

Figure 37 shows age-adjusted mortality rates for Baltimore City combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Baltimore City had higher mortality rates than Whites for six of the eight top causes of death and for all-cause mortality (the exceptions being chronic lung disease and liver disease).

- The largest mortality ratio disparities for Blacks or African Americans were seen with HIV, 6.7 times the White rate; and kidney disease, 2.1 times the White rate.

Figure 37. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Baltimore City, Maryland 2002-2006



Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

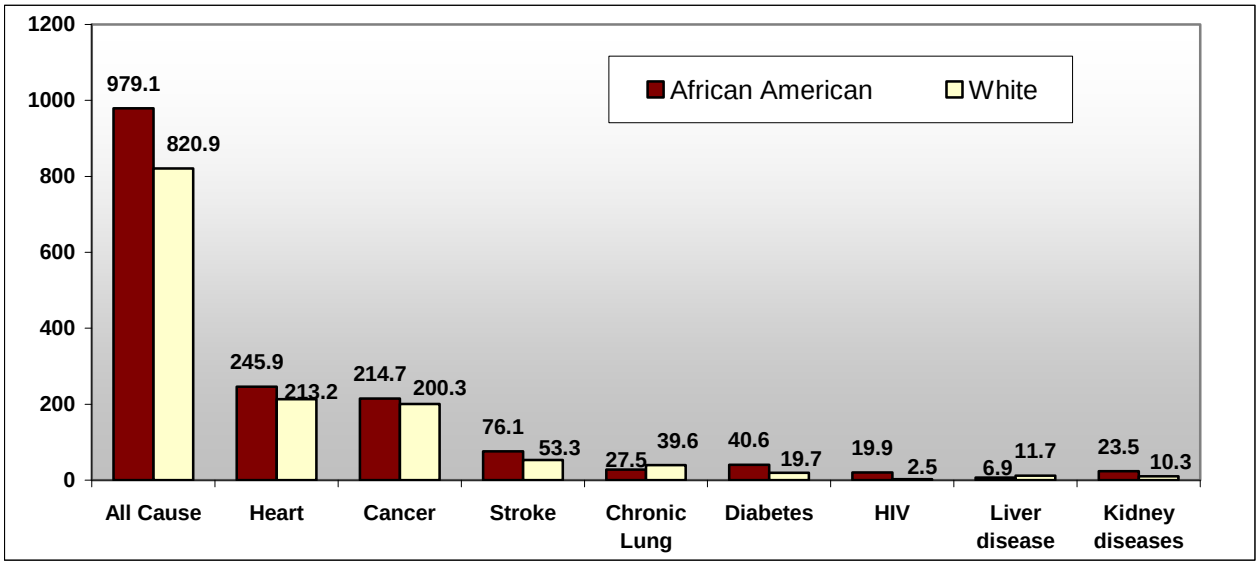
Baltimore County

Figure 38 shows age-adjusted mortality rates for Baltimore County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Baltimore County had higher mortality rates than Whites for six of the eight top causes of death and for all-cause mortality (exceptions were chronic lung disease and liver disease).

- The mortality ratio disparity was greatest with HIV, kidney disease and diabetes, where Blacks or African Americans had 8.0 times the HIV death rate, 2.3 times the kidney disease death rate and 2.1 times the diabetes death rate compared to Whites.

Figure 38. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Baltimore County, Maryland 2002-2006



Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

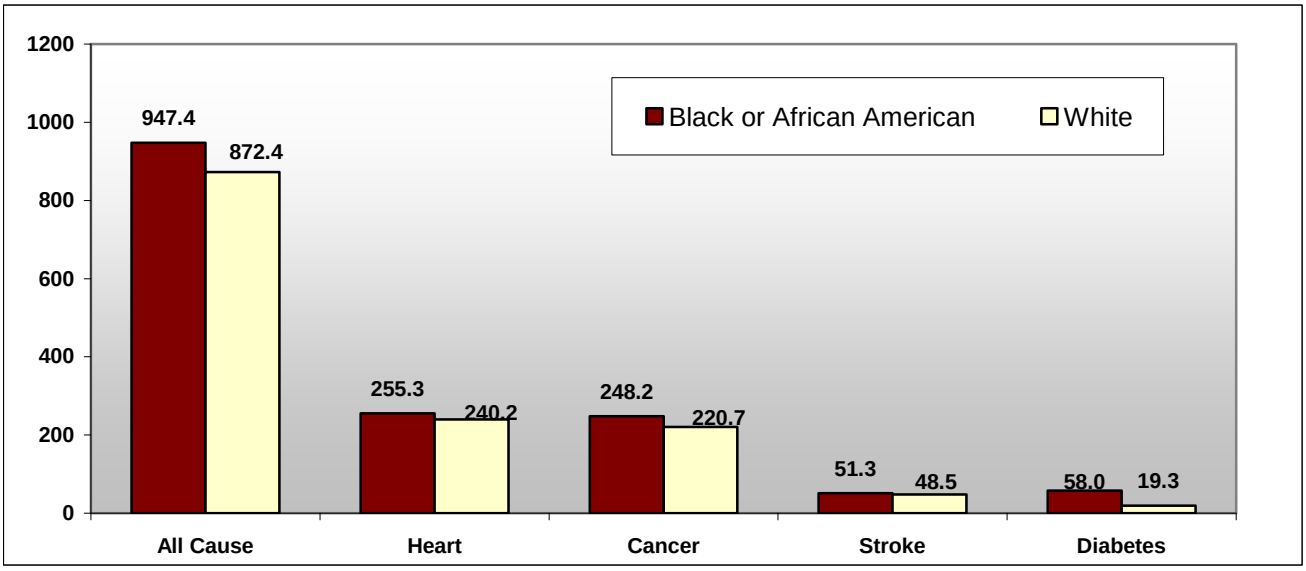
Calvert County

Figure 39 shows age-adjusted mortality rates for Calvert County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Calvert County had higher mortality rates than Whites for all-cause mortality and for the top four causes of death.

- The greatest mortality ratio disparity for Blacks or African Americans compared to Whites was with diabetes, where Blacks or African Americans had 3.0 times the diabetes death rate compared to Whites.

Figure 39. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Calvert County, Maryland 2002-2006



Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

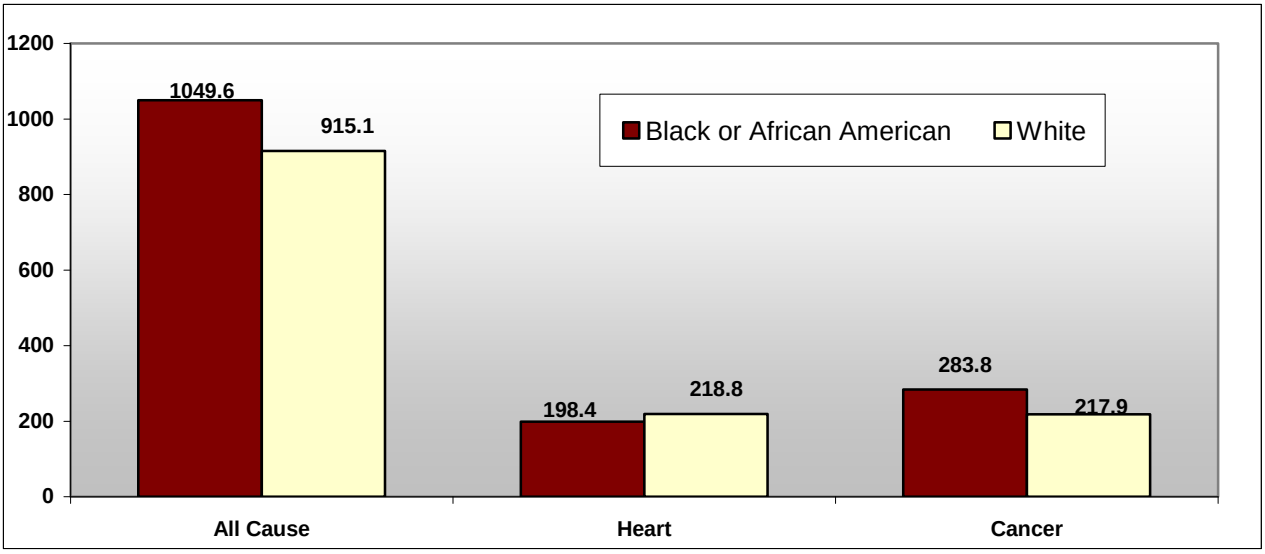
Caroline County

Figure 40 shows age-adjusted mortality rates for Caroline County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Caroline County had higher mortality rates than Whites for all-cause mortality and cancer. Whites had higher mortality rates for diseases of the heart compared to Blacks or African Americans.

- Cancer mortality was 1.3 times higher for Blacks or African Americans than for Whites.

Figure 40. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Caroline County, Maryland 2002-2006



Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]
Note: Additional causes of death were not included due to insufficient data.

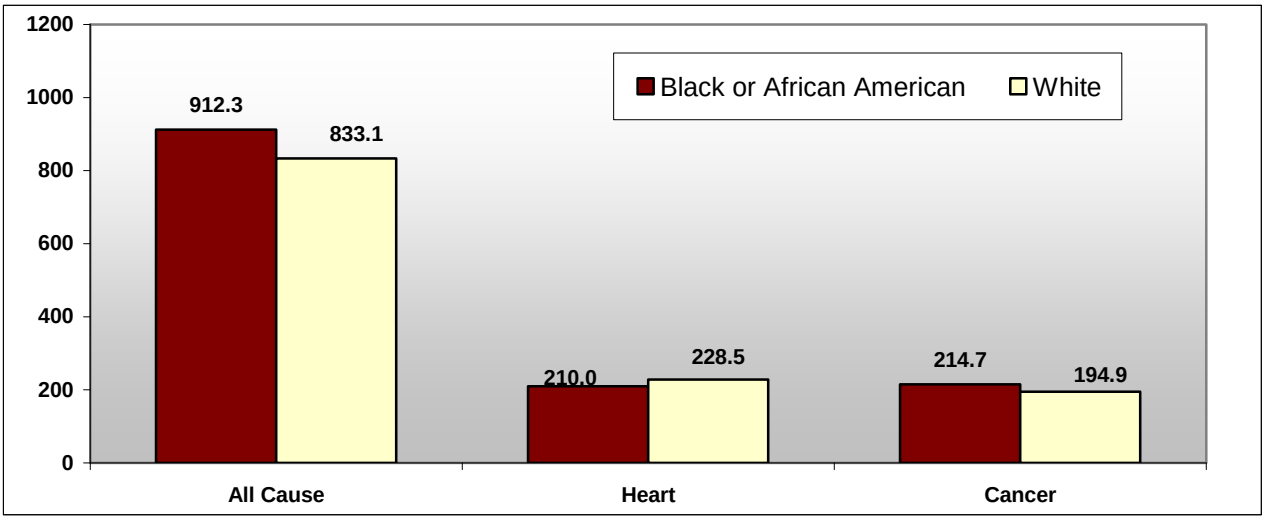
Carroll County

Figure 41 shows age-adjusted mortality rates for Carroll County combining data from 2002 to 2006 [12].

- Blacks or African Americans in Carroll County had higher mortality rates than Whites for all-cause mortality and for cancer. Whites had higher mortality rates for diseases of the heart compared to Blacks or African Americans.

- The Black or African American cancer death rate was 1.10 times higher than the White cancer death rate.

Figure 41. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Carroll County, Maryland 2002-2006



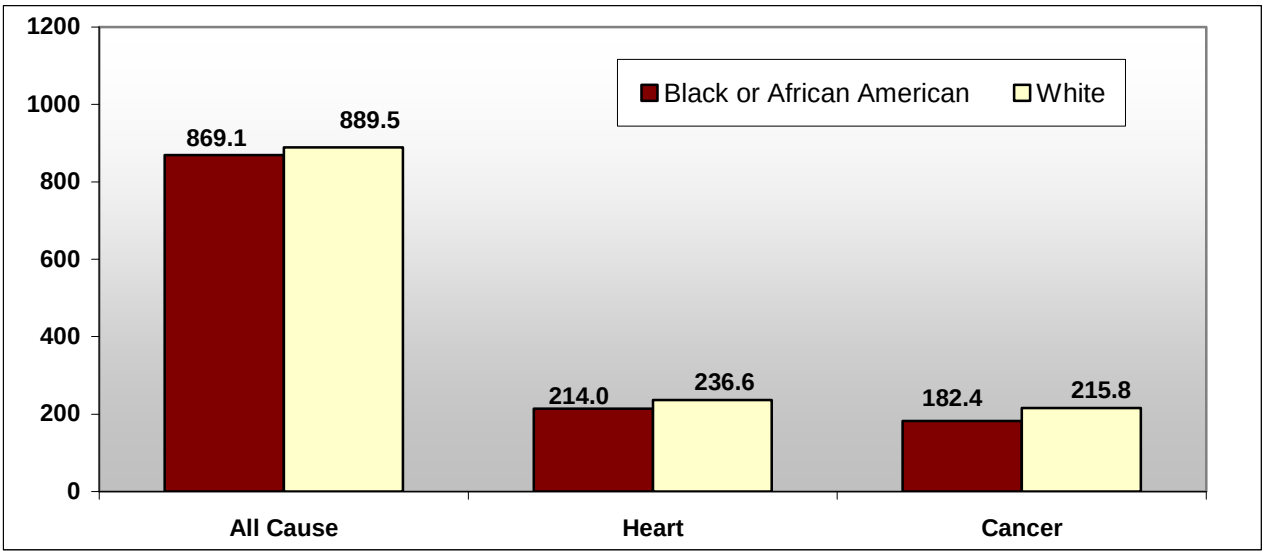
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]
Note: Additional causes of death were not included due to insufficient data.

Cecil County

Figure 42 shows age-adjusted mortality rates for Cecil County combining data from 2002 to 2006 [12].

- Whites in Cecil County had higher mortality rates than Blacks or African Americans for the top two causes of death and for all-cause mortality.

Figure 42. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Cecil County, Maryland 2002-2006



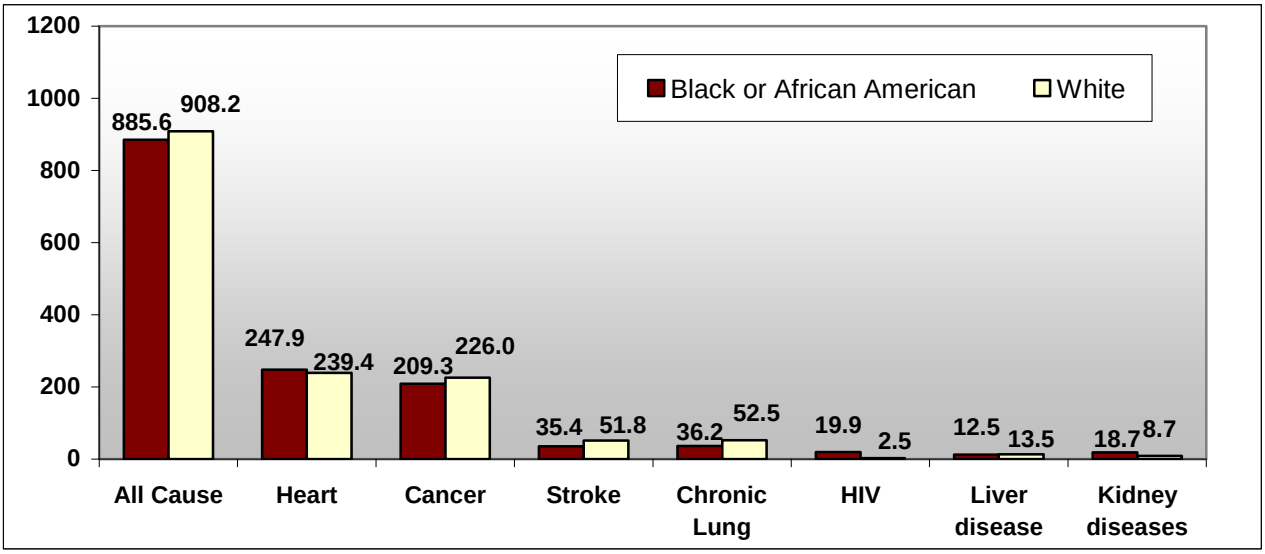
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]
Note: Additional causes of death were not included due to insufficient data.

Charles County

Figure 43 shows age-adjusted mortality rates for Charles County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Charles County had higher mortality rates than Whites for three of the top seven causes of death (diseases of the heart, HIV, and kidney disease).
- The greatest mortality ratio disparity for Blacks or African Americans compared to Whites was for HIV, where Blacks or African Americans had 8.0 times the HIV death rate compared to Whites.

Figure 43. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Charles County, Maryland 2002-2006



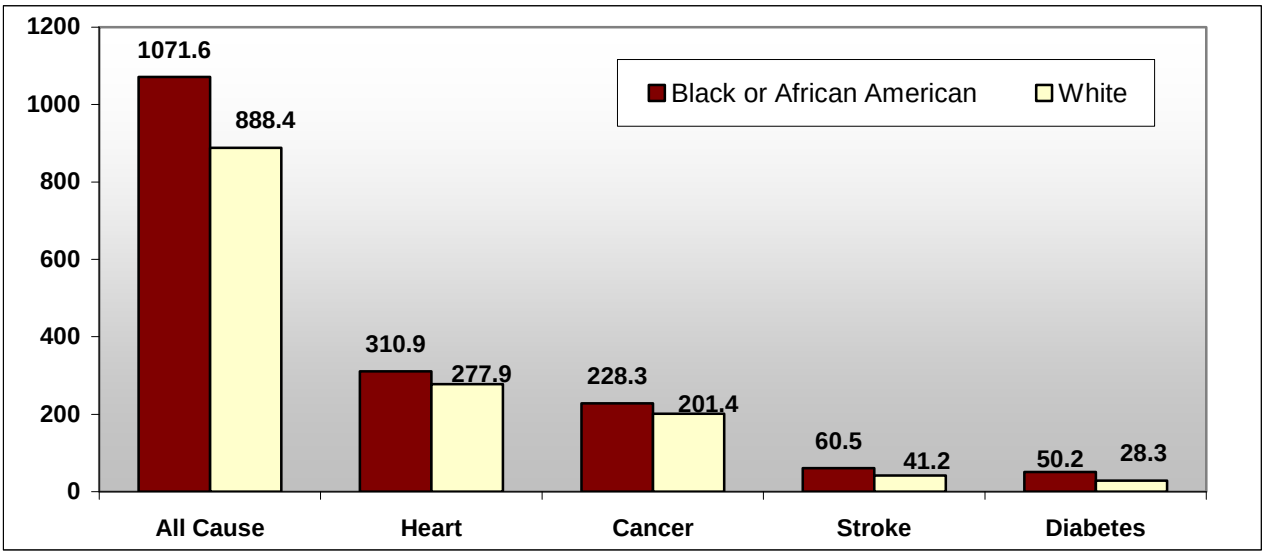
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

Dorchester County

Figure 44 shows age-adjusted mortality rates for Dorchester County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Dorchester County had higher death rates for all-cause mortality and for the top four causes of death compared to Whites.
- The greatest mortality ratio disparity for Blacks or African Americans compared to Whites was with diabetes, where Blacks or African Americans had a 1.8 times higher death rate than Whites.

Figure 44. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Dorchester County, Maryland 2002-2006



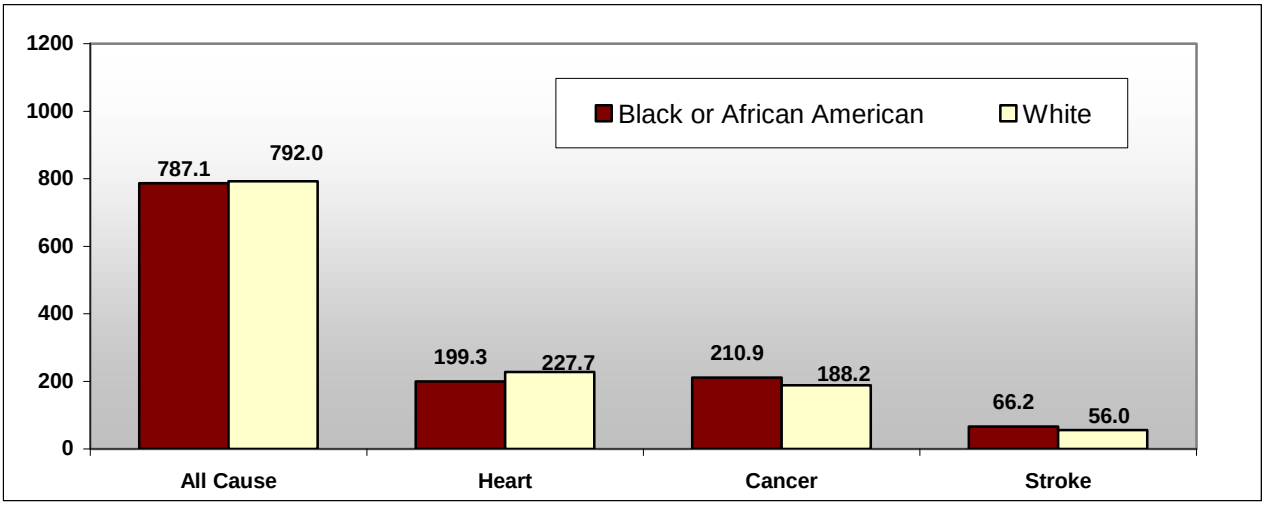
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

Frederick County

Figure 45 shows age-adjusted mortality rates for Frederick County [12]. Key findings include:

- Blacks or African Americans in Frederick County had higher mortality rates than Whites for cancer and stroke.
- Blacks or African Americans had a cancer mortality rate that was 1.12 times higher than the White rate, and a stroke mortality rate that was 1.18 times higher.

Figure 45. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Frederick County, Maryland 2002-2006



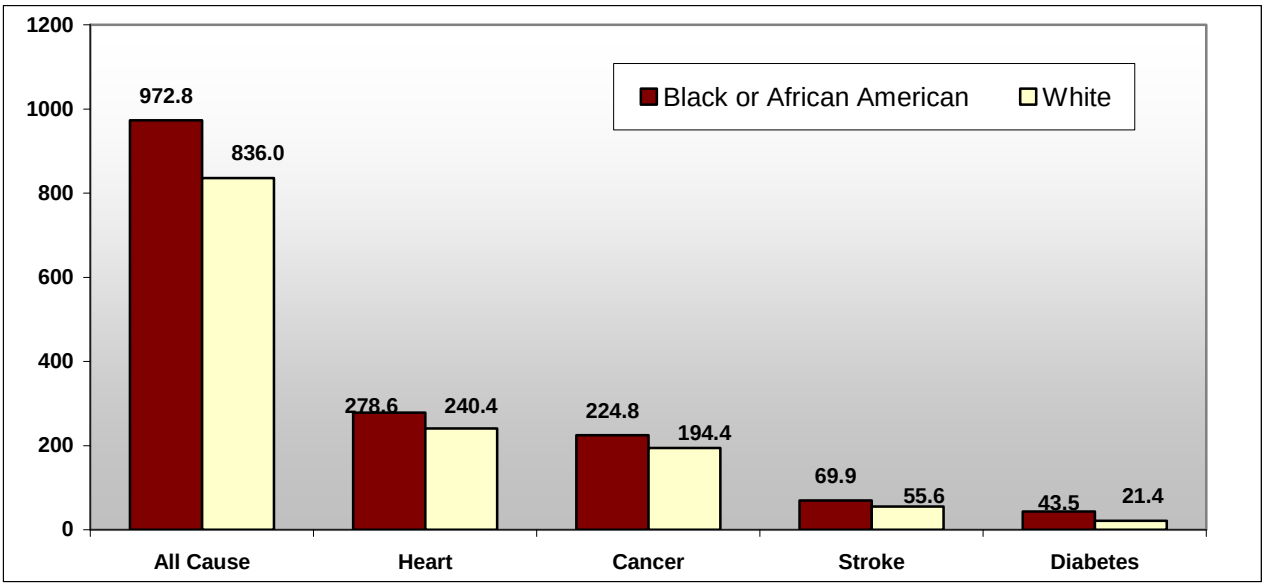
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]
Note: Additional causes of death were not included due to insufficient data.

Harford County

Figure 46 shows age-adjusted mortality rates for Harford County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Harford County had higher mortality rates than Whites for all-cause mortality and for the top four causes of death.
- The greatest mortality ratio disparity for Blacks or African Americans compared to Whites was for diabetes, where African Americans had 2.0 times the diabetes death rate compared to Whites.

Figure 46. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Harford County, Maryland 2002-2006



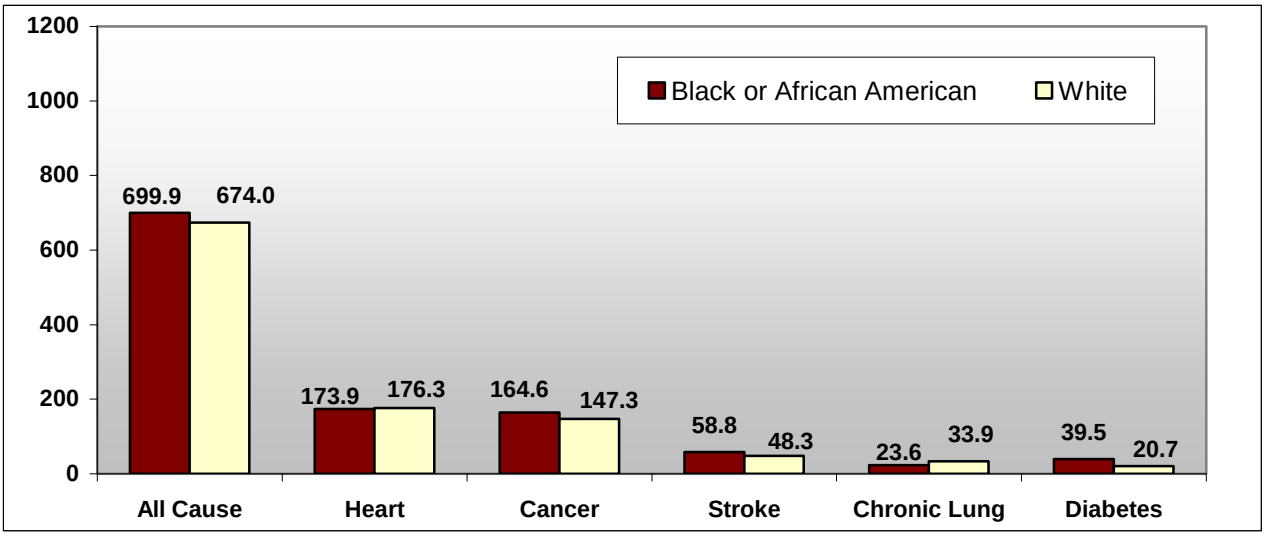
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

Howard County

Figure 47 shows age-adjusted mortality rates for Howard County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Howard County had higher mortality rates than Whites for all-cause mortality and for three of the five top causes of death (exceptions were heart disease and chronic lung disease).
- The greatest mortality ratio disparity for Blacks or African Americans compared to Whites was with diabetes, where Blacks or African Americans had a 1.9 times higher diabetes death rate than Whites.

Figure 47. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Howard County, Maryland 2002-2006



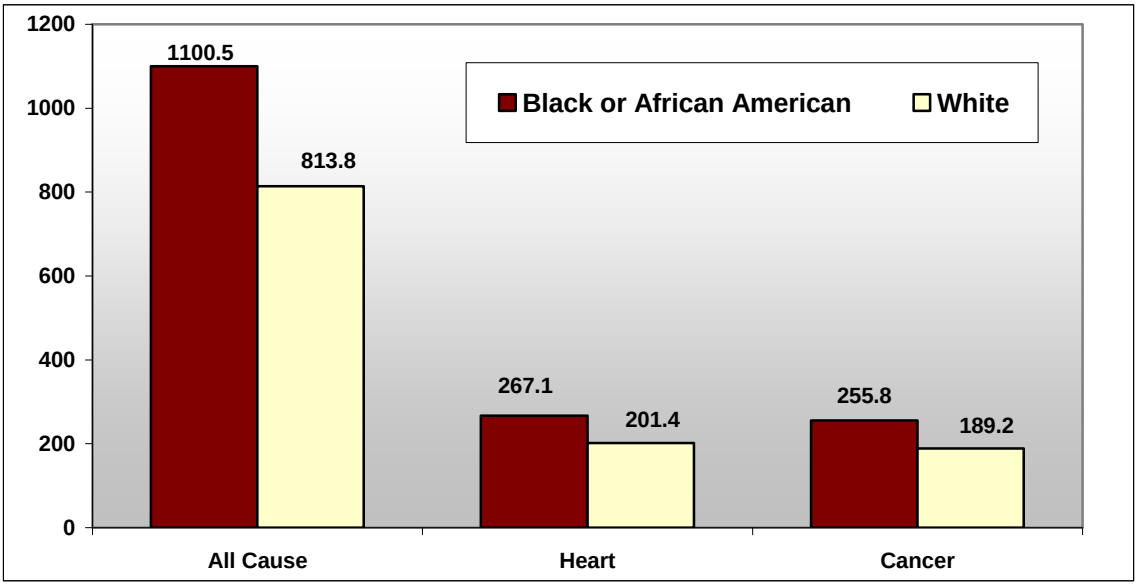
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

Kent County

Figure 48 shows age-adjusted mortality rates for Kent County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Kent County had higher mortality rates than Whites for all-cause mortality, for diseases of the heart, and for cancer.
- Blacks or African Americans had a 1.33 times higher death rate from diseases of the heart, and a 1.35 times higher death rate from cancer compared to Whites.

Figure 48. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Kent County, Maryland 2002-2006



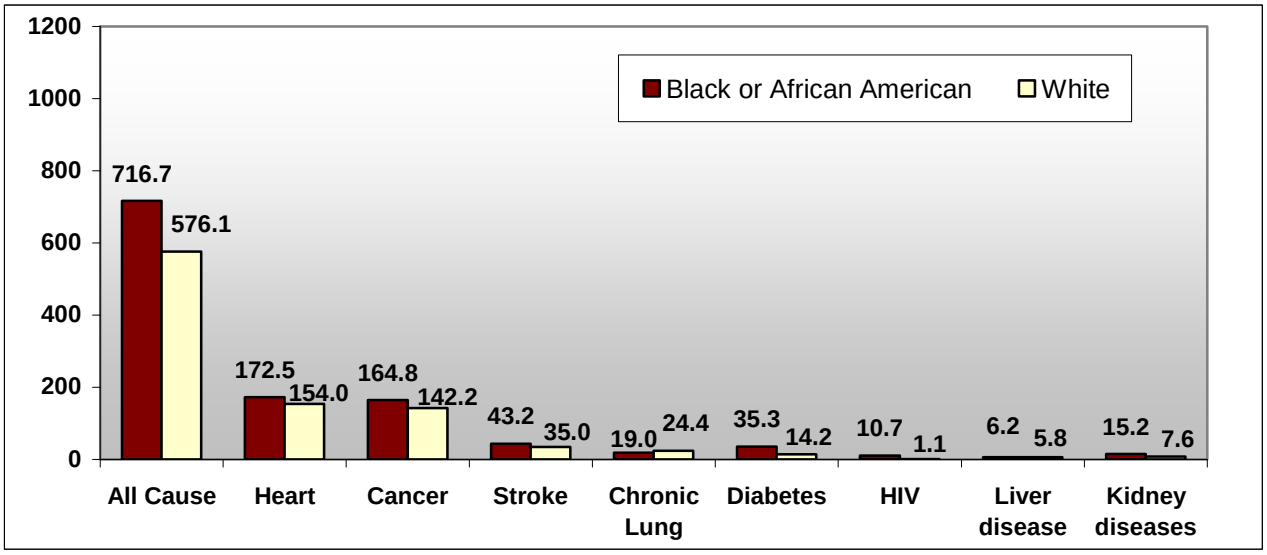
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]
Note: Additional causes of death were not included due to insufficient data.

Montgomery County

Figure 49 shows age-adjusted mortality rates for Montgomery County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Montgomery County had higher mortality rates than Whites for all-cause mortality and for seven of the top eight causes of death (exception was chronic lung disease).
- The mortality ratio disparity was greatest for HIV and diabetes, where Blacks or African Americans had 9.7 times the HIV death rate and 2.5 times the diabetes death rate of Whites.

Figure 49. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Montgomery County, Maryland 2002-2006



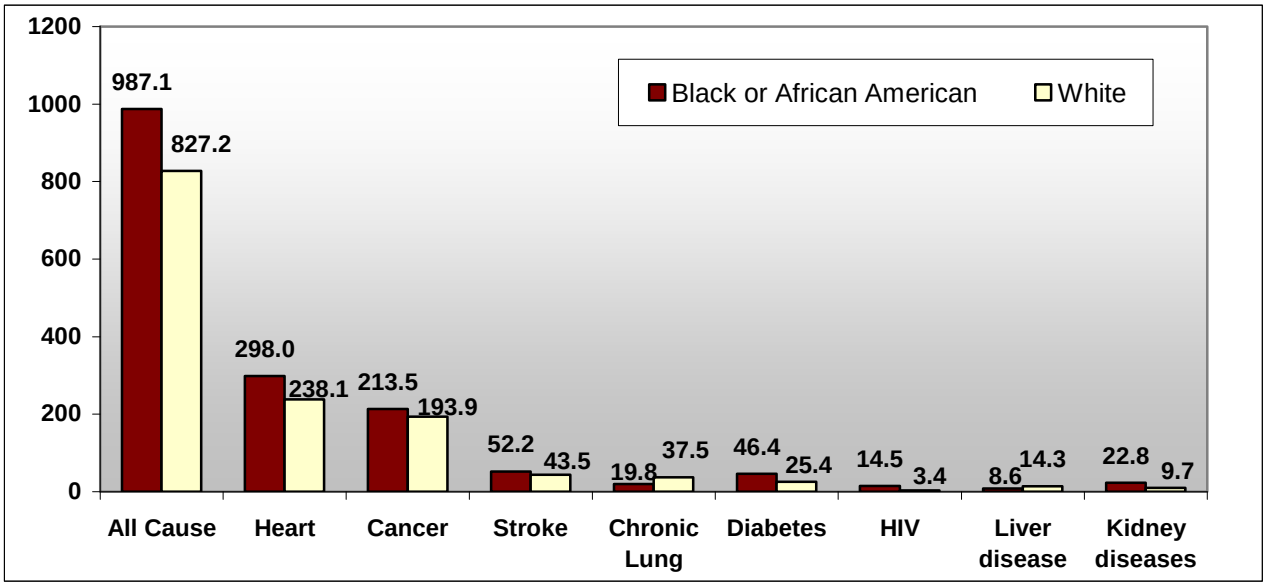
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

Prince George's County

Figure 50 shows age-adjusted mortality rates for Prince George's County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Prince George's County had higher mortality rates than Whites for all-cause mortality and for six of the top eight causes of death (exceptions were chronic lung disease and liver disease).
- The mortality ratio disparity was greatest for HIV and kidney disease, where Blacks or African Americans had 4.3 times the HIV death rate and 2.4 times the kidney disease death rate of Whites.

Figure 50. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Prince George's County, Maryland 2002-2006



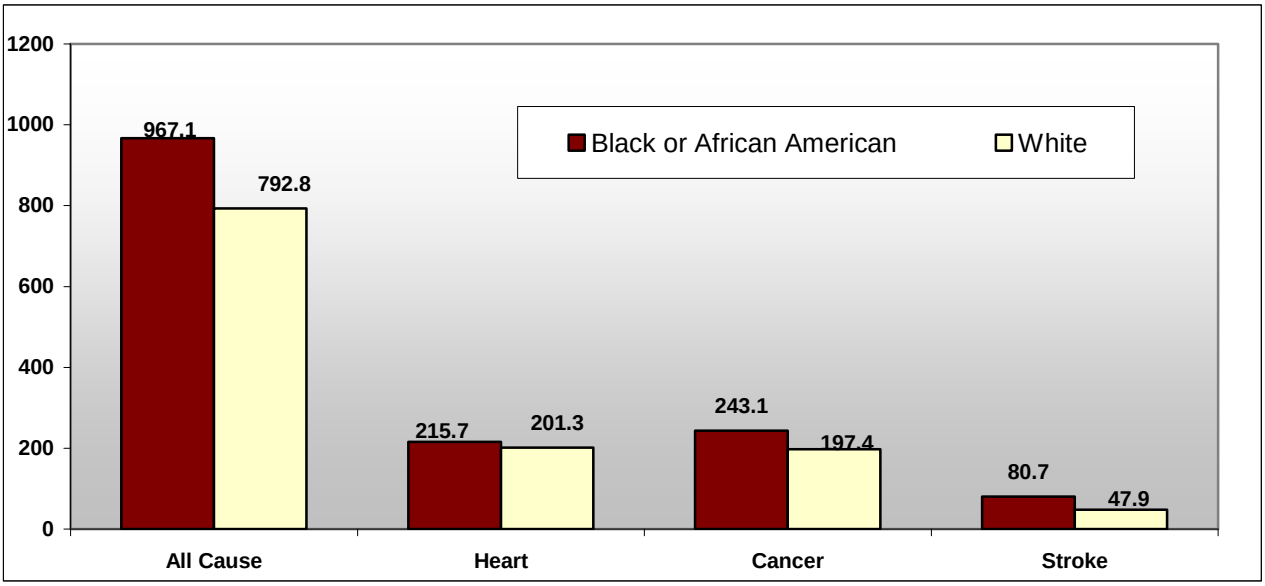
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

Queen Anne's County

Figure 51 shows age-adjusted mortality rates for Queen Anne's County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Queen Anne's County had higher mortality rates than Whites for all-cause mortality and for the top three causes of death.
- The greatest mortality ratio disparity for Blacks or African Americans compared to Whites was with stroke, where African Americans had a 1.7 times higher mortality rate than Whites.

Figure 51. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Queen Anne's County, Maryland 2002-2006



Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

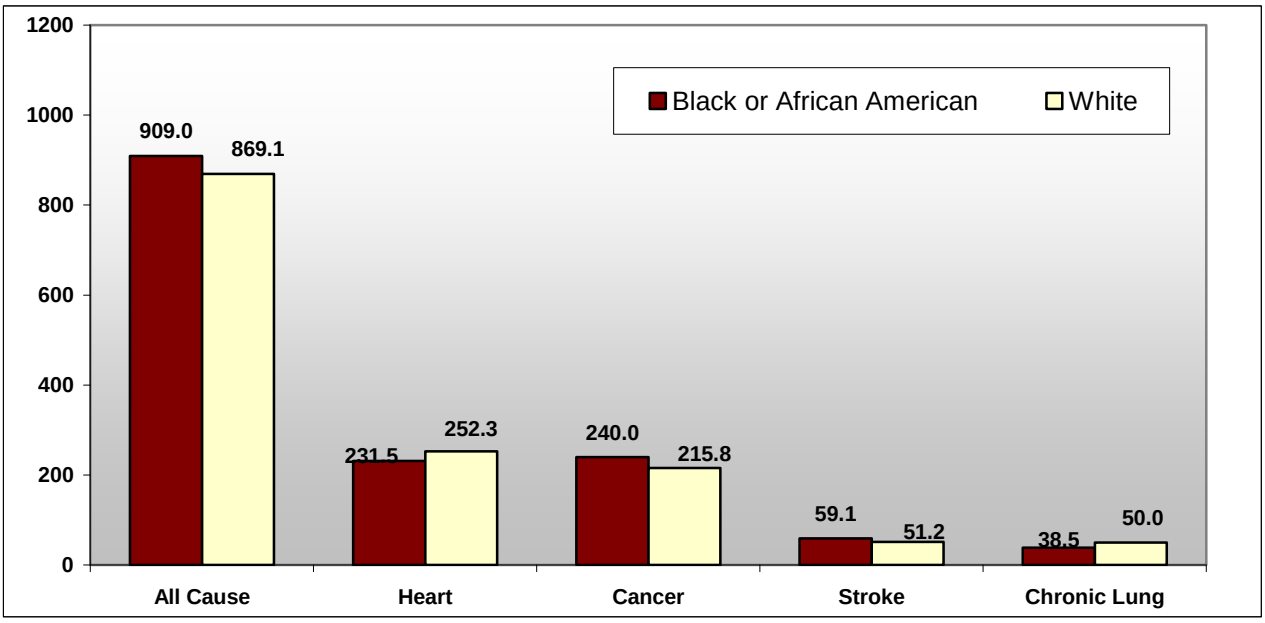
St. Mary's County

Figure 52 shows age-adjusted mortality rates for St. Mary's County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in St. Mary's County had higher mortality rates than Whites for all-cause mortality and for two of the top four causes of death (exceptions were heart disease and chronic lung disease).

- Blacks or African Americans had a cancer mortality rate that was 1.1 times higher than the rate for Whites.

Figure 52. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, St. Mary's County, Maryland 2002-2006



Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

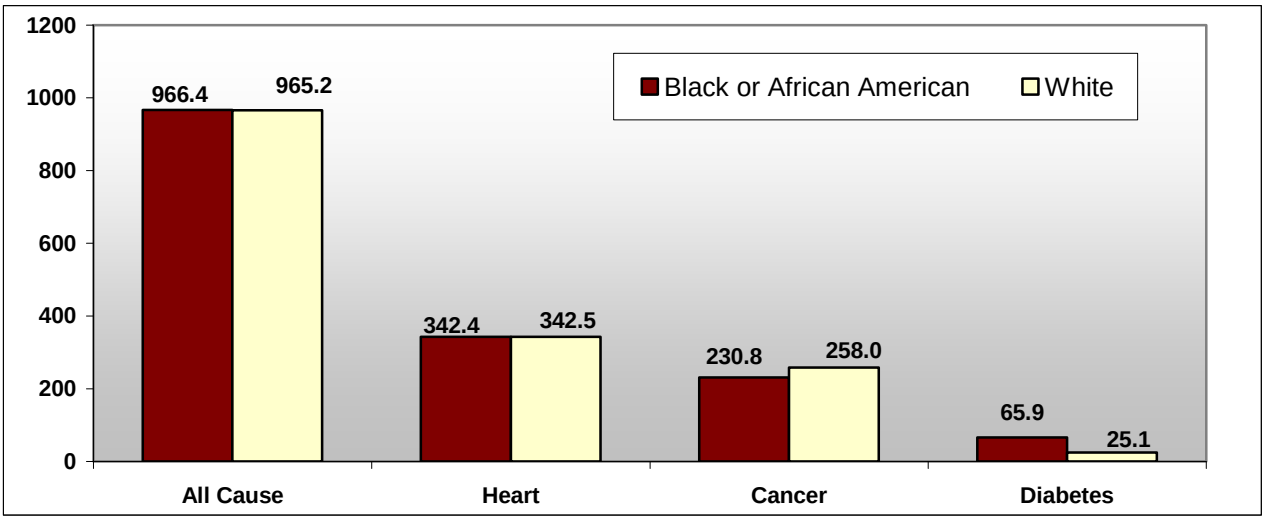
Somerset County

Figure 53 shows age-adjusted mortality rates for Somerset County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Somerset County had higher mortality rates than Whites for all-cause mortality and for diabetes.

- The diabetes mortality rate for Blacks or African Americans was 2.6 times higher than for Whites.

Figure 53. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Somerset County, Maryland 2002-2006



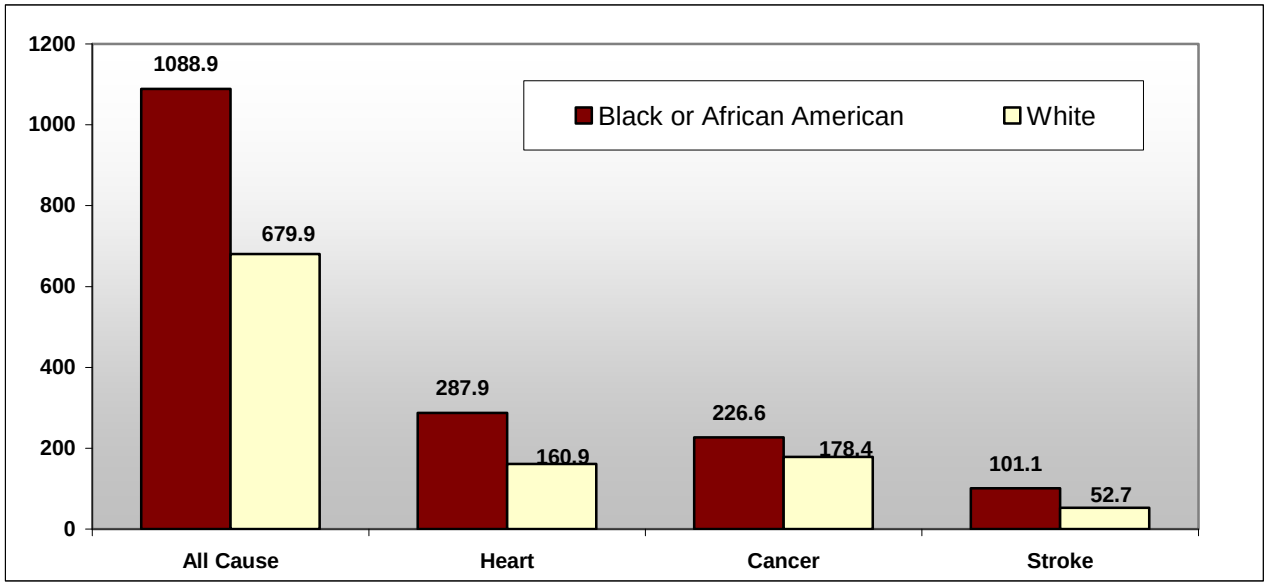
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

Talbot County

Figure 54 shows age-adjusted mortality rates for Talbot County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Talbot County had higher mortality rates than Whites for all-cause mortality and for the top three causes of death.
- The greatest mortality ratio disparity for Blacks or African Americans compared to Whites was with stroke, where Blacks or African Americans had a 1.9 times higher mortality rate from stroke than Whites.

Figure 54. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Talbot County, Maryland 2002-2006



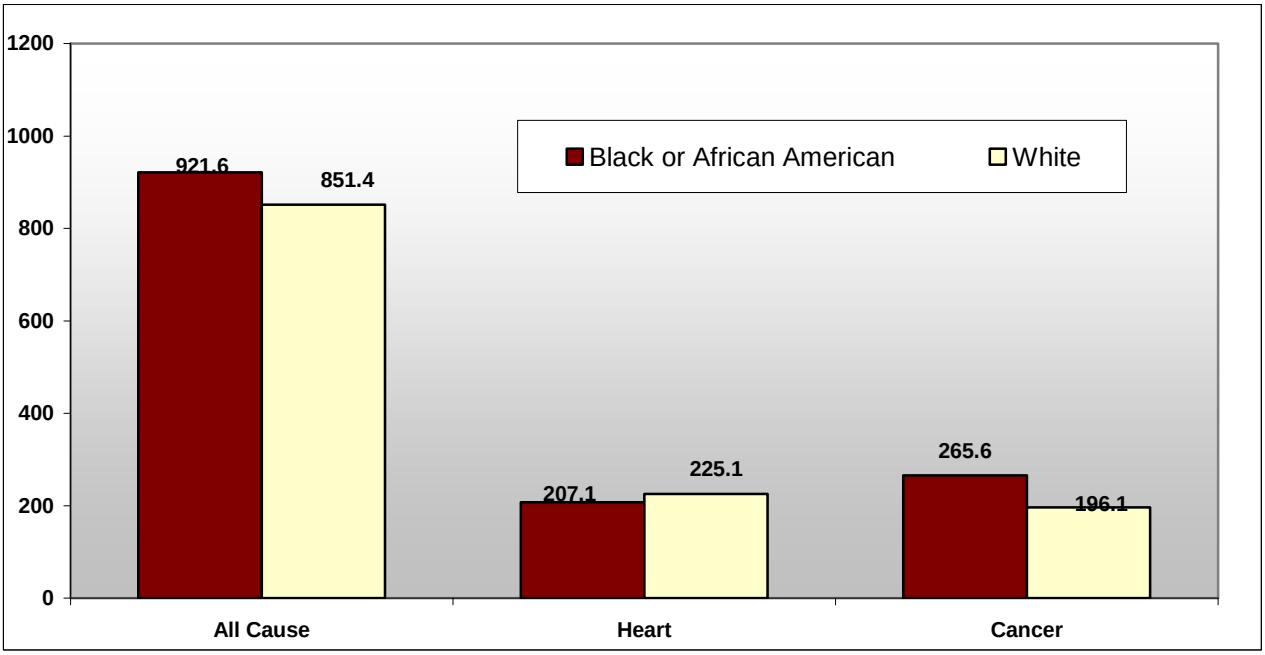
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

Washington County

Figure 55 shows age-adjusted mortality rates for Washington County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Washington County had higher mortality rates than Whites for all-cause mortality and for cancer.
- Blacks or African Americans had a 1.35 times higher cancer mortality rate than Whites.

Figure 55. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Washington County, Maryland 2002-2006



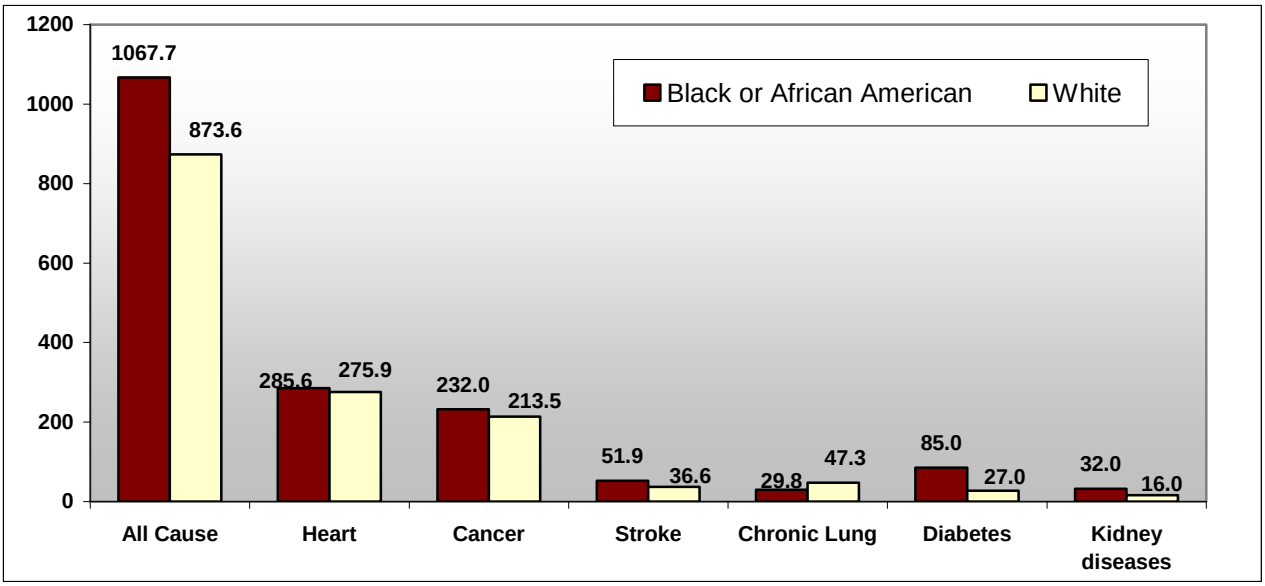
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]
Note: Additional causes of death were not included due to insufficient data.

Wicomico County

Figure 56 shows age-adjusted mortality rates for Wicomico County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Wicomico County had higher mortality rates than Whites for all-cause mortality and for five of the top six causes of death (exception was chronic lung disease).
- The mortality ratio disparity was greatest for diabetes and kidney disease, where Blacks or African Americans had 3.2 times the diabetes death rate and 2.0 times the kidney disease death rate compared to Whites.

Figure 56. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Wicomico County, Maryland 2002-2006



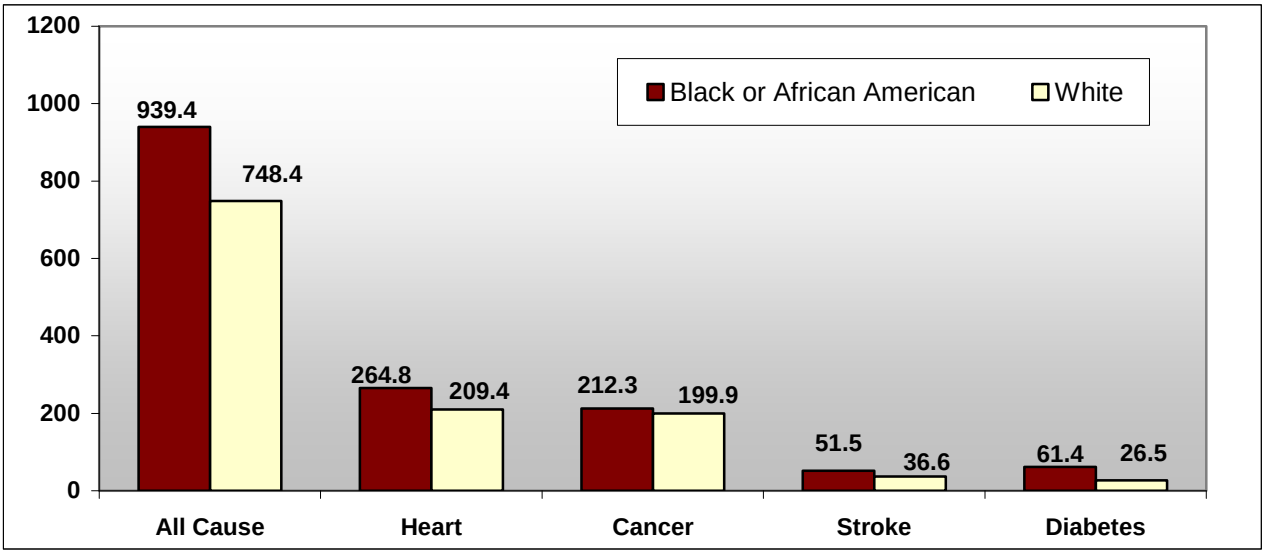
Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

Worcester County

Figure 57 shows age-adjusted mortality rates for Worcester County combining data from 2002 to 2006 [12]. Key findings include:

- Blacks or African Americans in Worcester County had higher mortality rates than Whites for all-cause mortality and for the top four causes of death.
- The greatest mortality ratio disparity for Blacks or African Americans compared to Whites was for diabetes, where Blacks or African Americans had 2.3 times the rate of deaths compared to Whites.

Figure 57. Age-Adjusted Mortality Rates (per 100,000), Selected Causes of Death for Blacks or African Americans and Whites, Worcester County, Maryland 2002-2006



Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]

Cancer Data by Site and Jurisdiction

The following series of charts presents age-adjusted cancer mortality rates for specific types of cancer, by race and ethnicity, and by jurisdiction, where data were available. For certain types of cancer, jurisdiction level data could not be reliably calculated due to small numbers; therefore those jurisdictions were excluded from the chart.

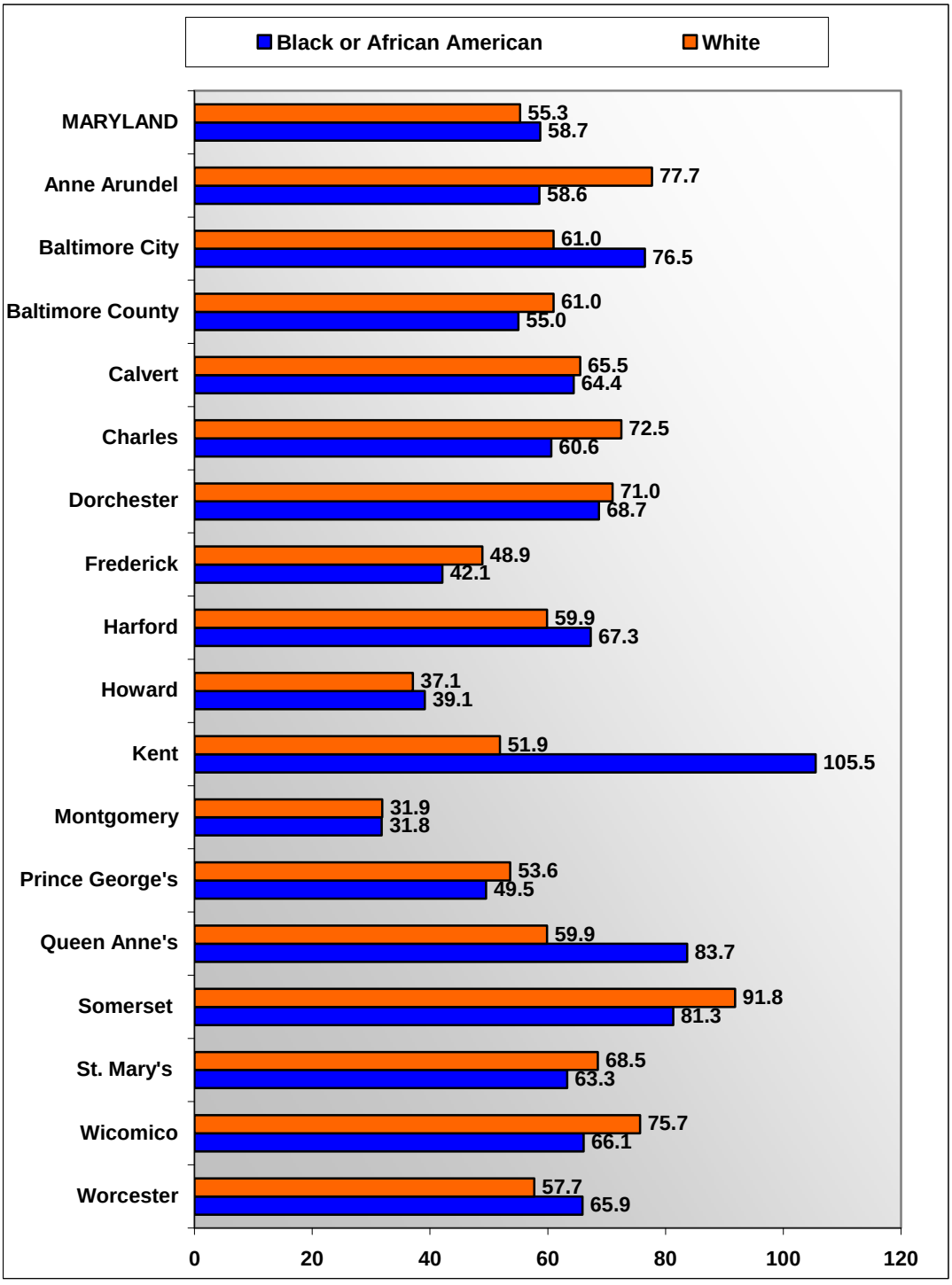
Figure 58 shows age-adjusted mortality rates for lung and bronchus cancer for Blacks or African Americans and Whites, by jurisdiction, for 2002 to 2006 [12]. Key findings include:

- In six of seventeen jurisdictions (35%) where data were available, and in Maryland statewide, Black or African American lung and bronchus cancer mortality rates exceeded those of Whites.

- Of all jurisdictions reported here, Kent County had the greatest mortality rate disparity for Blacks or African Americans compared to Whites, where Blacks or African Americans had 2.0 times the rate of death, and 53.6 more deaths per 100,000 persons than Whites. Kent County also had the highest Black or African American lung and bronchus cancer mortality rate of the jurisdictions reportable here.

- The jurisdiction with the highest cancer mortality rate for Whites was Somerset County. White cancer mortality rates exceeded those of Blacks or African Americans there; however, both Black or African American and White lung and bronchus cancer mortality rates in Somerset County were among the highest of all jurisdictions reported here.

Figure 58. Age-Adjusted Lung and Bronchus Cancer Mortality Rates by Race and Jurisdiction, Maryland 2002-2006 Combined

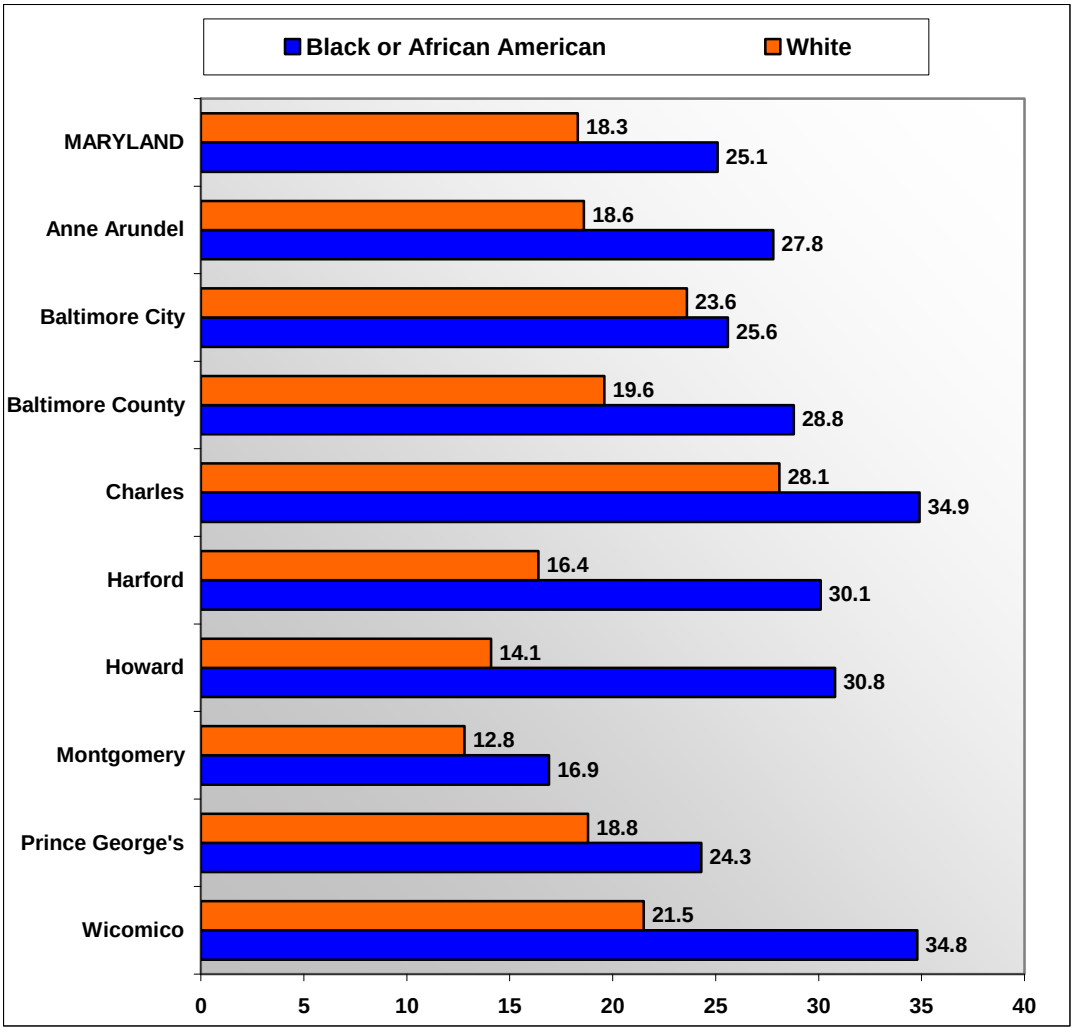


Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]
Note: Excluded jurisdictions had estimates that could not be reliably reported due to small numbers.

Figure 59 shows age-adjusted colon and rectal cancer mortality rates for Blacks or African Americans and Whites, by jurisdiction, for 2002 to 2006 [12]. Key findings include:

- In all 9 jurisdictions where data were available, and in Maryland statewide, Black or African American colorectal cancer mortality rates exceeded those of Whites.
- Of all jurisdictions, Howard County had the largest colon and rectal cancer mortality rate ratio disparity for Blacks or African Americans compared to Whites, with 2.2 times the rate of death, and 16.7 more deaths per 100,000 compared to Whites.
- The jurisdiction with the smallest rate difference in mortality between Blacks or African Americans and Whites was Baltimore City. This reflects an average rate for Blacks or African Americans, and relatively high rates for Whites.

Figure 59. Age-Adjusted Colorectal Cancer Mortality Rates by Race and Jurisdiction, Maryland 2002-2006 Combined

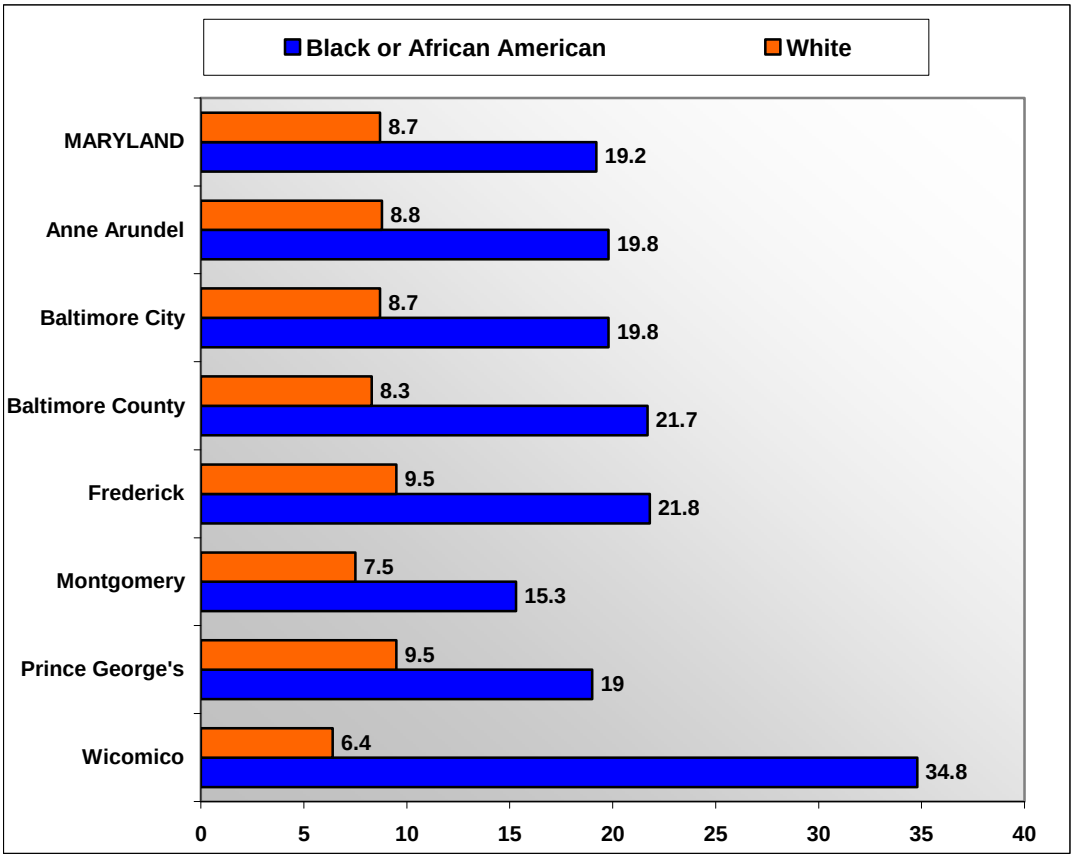


Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]
Note: Excluded jurisdictions had estimates that could not be reliably reported due to small numbers.

Figure 60 shows age-adjusted prostate cancer mortality rates for Blacks or African Americans and Whites, by jurisdiction, for 2002 to 2006 [12]. Key findings include:

- In Maryland statewide, and the seven jurisdictions where data were available, Black or African American prostate cancer mortality rates far exceeded those of Whites.
- In all jurisdictions reportable, Black or African American males had over two times the death rate from prostate cancer compared to White males.
- Of all jurisdictions, Wicomico County had the largest mortality ratio disparity for Blacks or African Americans compared to Whites, where Blacks or African Americans have 5.4 times the rate of death.
- The jurisdiction with the largest difference in the death rates was also Wicomico County with 28.4 more Black or African American deaths per 100,000.

Figure 60. Age-Adjusted Prostate Cancer Mortality Rates by Race/Ethnicity, by Jurisdiction, Maryland 2002-2006 Combined

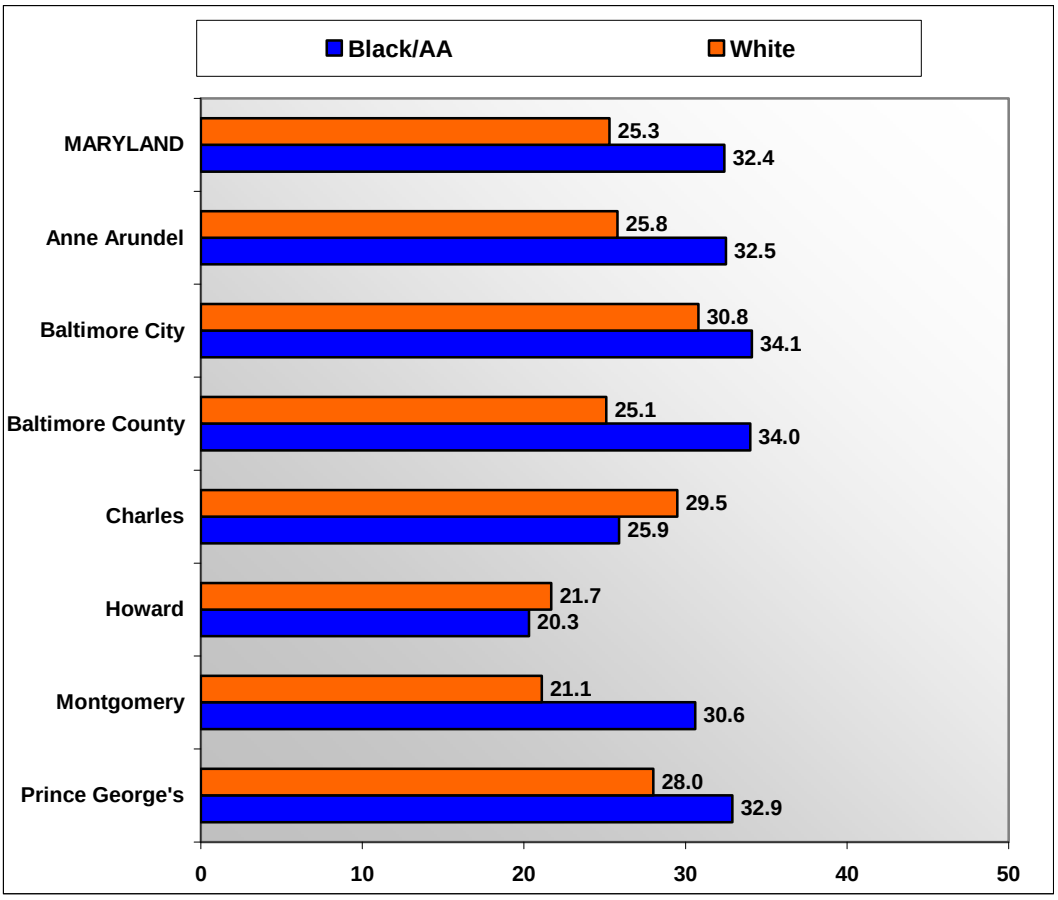


Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]
Note: Excluded jurisdictions had estimates that could not be reliably reported due to small numbers.

Figure 61 shows age-adjusted breast cancer mortality rates for Black or African American and White females, by jurisdiction [12]. Key findings include:

- In five of the seven jurisdictions (where rates could be calculated), and Maryland statewide, Black or African American females had higher mortality rates from breast cancer than White females.
- Of all jurisdictions, Montgomery County had the largest mortality ratio disparity for Blacks or African Americans compared to Whites, where Blacks or African Americans had 1.45 times the mortality rate of whites. This reflects both a moderately high Black or African American rate and the lowest White rate among the reportable jurisdictions.

Figure 61. Age-Adjusted Combined Breast and Cervical Cancer Mortality Rates by Race/Ethnicity, by Jurisdiction, Maryland 2002-2006 Combined



Source: CDC Wonder online Database, Compressed Mortality Files 2002-2006 [12]
Note: Excluded jurisdictions had estimates that could not be reliably reported due to small numbers.

References

1. Maryland Vital Statistics Administration, *Maryland Vital Statistics Annual Report 2008*. 2008, Maryland Department of Health and Mental Hygiene.

2. Maryland Vital Statistics Administration, *Maryland Vital Statistics Annual Report 2007*. 2007, Maryland Department of Health and Mental Hygiene.

3. Office of Management and Budget. *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity* 1997 [cited December 2009]; Available from: http://www.whitehouse.gov/omb/rewrite/fedreg/ombdir15.html.

4. Maryland Vital Statistics Administration, *Maryland Vital Statistics Annual Reports 2004-2008*. 2004-2008, Maryland Department of Health and Mental Hygiene.

5. Maryland Office of Minority Health and Health Disparities, *analysis of U.S. Renal Data System data, 1991-2001 pooled*. 2006, Maryland Department of Health and Mental Hygiene, Office of Minority Health and Health Disparities: Baltimore, MD.

6. Maryland Behavioral Risk Factor Surveillance System. *Maryland behavioral risk factor surveillance system ad hoc reporting tool*. 2004-2008 [cited July to December, 2009]; Available from: http://www.marylandbrfss.org/cgi-bin/broker.

7. Maryland Behavioral Risk Factor Surveillance System. *Maryland behavioral risk factor surveillance system ad hoc reporting tool*. 2001-2002 [cited March 2009]; Available from: http://www.marylandbrfss.org/cgi-bin/broker.

8. Maryland Behavioral Risk Factor Surveillance System. *Maryland behavioral risk factor surveillance system ad hoc reporting tool*. 2003-2007 [cited March 2009]; Available from: http://www.marylandbrfss.org/cgi-bin/broker.

9. Maryland Infectious Disease and Environmental Health Administration, *Maryland HIV/AIDS Epidemiological Profile Fourth Quarter 2008*. 2008, Maryland Department of Health and Mental Hygiene, Infectious Disease and Environmental Health Administration.

10. Maryland Asthma Control Program, *Asthma in Maryland 2007*. 2007, Maryland Department of Health and Mental Hygiene, Family Health Administration, Maryland Asthma Control Program.

11. Maryland Office of Minority Health and Health Disparities, *analysis of Maryland Health Services Cost Reveiw Commission hospital discharge data for 2004*. 2008, Maryland Department of Health and Mental Hygiene, Office of Minority Health and Health Disparities: Baltimore, MD.

12. Centers for Disease Control and Prevention, National Center for Health Statistics *Compressed Mortality File 1999-2006. CDC WONDER On-line Database, compiled from Compressed Mortality File 1999-2006 Series 20 No. 2L, 2009*. [cited July to December 2009]; Available from: http://wonder.cdc.gov/controller/datarequest/D43;jsessionid=8129BF3F99CB0D84A880BF18099728DB.

13. Maryland Health Care Commission, *Differences in Hospitalizations for Ambulatory Care Sensitive Conditions Among Maryland Medicare Beneficiaries—2006*. 2008, Maryland Department of Health and Mental Hygiene, Maryland Health Care Commission: Baltimore, MD.

14. Maryland Cigarette Restitution Fund Program, *Cancer Report 2008*. 2008, Maryland Department of Health and Mental Hygiene, Cigarette Restitution Fund Program, Cancer Prevention, Education, Screening and Treatment Program: Baltimore, MD.

15. National Center for Health Statistics. *U.S. Census Populations With Bridged Race Categories*. [cited December 2009]; Available from: http://www.cdc.gov/nchs/nvss/bridged_race.htm.

16. U.S. Census Bureau. *DP-1. Profile of General Demographic Characteristics: 2000*. Census 2000 Summary File 1 (SF 1) 100-Percent Data [cited December 2009]; Available from: http://factfinder.census.gov/servlet/QTTable?_bm=n&_lang=en&qr_name=DEC_2000_SF1_U_DP1&ds_name=DEC_2000_SF1_U&geo_id=04000US24.

17. U.S. Census Bureau. *Maryland General Demographic Characteristics: 2005*. 2005 American Community Survey [cited December 2009]; Available from: http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2005_EST_G00_DP1&-ds_name=ACS_2005_EST_G00_&-tree_id=305&-redoLog=false&-_caller=geoselect&-geo_id=04000US24&-format=&-_lang=en.